

Textbook, Chalkboard, Notebook:  
Resemiotization in a Mozambican Primary School

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A dissertation submitted in fulfillment of the requirements  
for the award of the degree of Master of Arts in Linguistics.

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2015

COMPULSORY DECLARATION

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## Abstract

This ethnographic, sociolinguistic study describes the writing practices of teachers and students in a Portuguese-language primary school in Mozambique. In the classroom, teachers and students engage in a text-chain ritual in which the teacher copies a text from the textbook onto the chalkboard which is then copied by the students into their notebooks. Using the theoretical framework of social semiotics, this study situates classroom writing within a range of multimodal practices which scaffold the written texts. This study employs the notion of resemiotization in order to describe the ways in which signs are transformed as they move between different sites of display. This resemiotization is framed by educational ritual with the language of instruction, Portuguese, being a second language (hereafter 'L2') to most of the students. Because of the linguistic constraints of the L2, rote-copying practices predominate in the classroom. Copying allows lessons to move forward despite the comprehension difficulties of the students. The text-chain is shown to be simultaneously reductive and expansive. Subsequent links tend to be reduced representations of their originating signs even while these signs serve as the basis for expansive multimodal ensembles which include speech, drawing and gesture, as well as the use of the students' home language. This study employs the notion of mimesis in order to account for the ways in which the resemiotization observed in the classroom is both imitative and creative. Each instance of writing imitates a previous link in the text-chain but also shows evidence of teachers and students creatively shaping their texts.

In order to study these writing practices, more than 40 classroom lessons were observed during two research trips to Tete, Mozambique. This study used observation and photographic data-records to trace the movement of texts over the course of a lesson. Photographs of the chalkboard were taken as the chalkboard text grew and changed. In each classroom, six students were selected and their notebook writing photographed. The photographing of the chalkboard and notebooks allowed for the comparison of these texts as they were produced in the classroom. Additionally, teachers and educators were interviewed to provide insight on classroom writing practices. During these interviews, teachers were asked to describe their schooling experience and compare it with schooling today. Teachers and educators also provided background information on bilingual education and their use of a technique known as *currículo local*, 'local curriculum', in which teachers

use local language and culture to create connections between classroom knowledge and students' existing knowledge.

This thesis draws attention to the complexity of writing practices in L2 classrooms. Writing is shown to be a term that covers a wide range of practices including rote copying, drawing, doodling, and pseudo-writing. These writing practices take place in an environment marked by linguistic and semiotic diversity. This thesis expands the use of the term resemiotization by looking in detail at the material and social processes that occur in the classroom.

Additionally, this thesis draws attention to ritual as an organizing principle for resemiotizing processes in which institutional forces and authorized language influence and shape local practices. The use of the notion of mimesis allows this analysis to account for the ways in which resemiotization involves both imitation and creativity in a text-chain that exhibits signs of semiotic reduction while simultaneously facilitating instances of profuse multimodal communication.

## Acknowledgments

I wish to acknowledge and thank the many people who made this thesis possible.

This thesis is dedicated in loving memory to my mother, Janet, who always dreamed I would be an academic.

Thank you to my parents, Steve and Carol, for their loving support on every step of my journey. To my mother-in-law, Ann, for everything. To my wife, Hilary, for tea breaks and copy-editing. Thank you to my children: Eleanor, Henry, Andrew, and Benjamin. You make me proud. Thank you to Mikael and Jeni for friendship and hospitality.

Thank you to the members of SIL Mozambique for facilitating this research. A great big thank you to the many people who prayerfully supported me during the writing of this thesis. Thank you to Jesus for hope and strength.

I am deeply grateful to my supervisor, Ana Deumert, for her guidance and astute editing. I have learned so much thanks to her supervision. Thank you to my co-supervisor, Arlene Archer, for her expertise and encouragement. A big thank you to the Linguinees, the post-grad linguistic group at UCT, for camaraderie and patience with my wild ideas. Thank you to the South African Multimodality in Education (SAME) group for forcing me to answer the question, 'So what?'

I am humbly indebted to the many Mozambican educators and teachers who so kindly allowed me to witness their engagement with the monumental challenge of educating the children of Mozambique. Thank you to the students who inspired me with their creativity in the classroom and their joy in the schoolyard.

The map on page 3 appears courtesy of Wikimedia Foundation.

I am grateful to SANPAD for funding a portion of my fieldwork in 2012.



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# 1 Introduction

## 1.1 Overview of the research

This thesis analyzes writing practices in a Mozambican primary school. While various studies have analyzed the products of classroom writing practices (Ivanic 2004; Hendricks 2009), few have shown the interplay of teacher and student writing practices over the course of a lesson (Dyson 1993; Pahl 2008). By following a text as it moves from the textbook to the lesson plan to the chalkboard and finally to student notebooks, this thesis shows the changes that occur when texts are copied from one site of display (Jones 2009) to another. Furthermore, by examining the reliance on writing for teaching and evaluation as well as the use of Portuguese as the language of instruction (LOI), this research demonstrates the way in which interactions between the teacher and student are highly constrained due to the students' lack of fluency in the LOI. At the same time, writing practices are also shown to be the starting point for expansive communication through speech, gesture and more.

Using a multimodal ethnographic approach (Dicks, Soyinka & Coffey 2006) and relying on direct observation as well as photographic data-records, this study shows complex literacy practices at work involving multimodal meaning-making (Kress & Van Leeuwen 2010) and collaborative writing (Blommaert 2004). Classroom writing, however, is not simply a local practice (Brandt & Clinton 2002). Distant actors determine topics, teaching methods, and forms of evaluation. By documenting and analyzing multimodal practices (Archer 2006; Jewitt 2008) and artifacts in the classroom, this research qualifies the concept of 'writing' in Mozambican educational contexts. This thesis also draws attention to 'naturalized technologies' (Krause 2000; Wylie 2012) like chalkboard and notebook writing that are frequently overlooked in the analysis of classroom practices as well as the impact of language on the modes of communication used (Jewitt 2008:247).

Lessons in a Mozambican classroom are structured around a text-chain (Bhattacharya et al. 2007) from the textbook to the chalkboard and finally to the notebook. At each stage, teachers and students call on diverse semiotic modes in an environment marked by material and linguistic scarcity. The large number of students in each classroom and their limited

abilities in the language of instruction force teachers to recontextualize lessons from the textbooks in a variety of ways (Bauman & Briggs 1990).

Writing encompasses more than the writing of words. Teachers and students also use pen and chalk to make drawings, graphs, mathematical formulas and more. It includes a variety of inscriptional practices (Harris 2000) that employ different surfaces and media as well as having different uses (Blommaert 2004).

## 1.2 Tete, Mozambique

In 2010, Mozambique celebrated 35 years of independence from Portuguese colonial rule. The Portuguese colonial legacy of neglect and a brutal civil war from 1977 to 1992 left Mozambique devastated by the time the conflict ended. Since 1992, the country has experienced a relatively stable social and economic climate with a strong emphasis on the eradication of poverty and promotion of economic development, even as it continues to be one of the poorest countries in the world (Chimbutane 2009:77). Tete is the third-most populous province in Mozambique with approximately two million inhabitants (Instituto Nacional de Estatística 2009a). The Mozambican government identifies Tete as being mostly rural (85%), and the province has been identified as having one of the highest rates of poverty in Africa (Alkire et al. 2011).

The province of Tete is located in Western Central Mozambique. It borders the countries of Zimbabwe, Zambia and Malawi (Figure 1). Geographically, Tete is low in elevation with a hot, arid climate and infrequent rainfall. The Zambezi River passes through the province with Cahora Bassa hydroelectric dam providing much of the electricity to Mozambique and neighboring countries. In recent years, large coal deposits have been discovered resulting in rapid population growth and expansion of industry in Tete City. A regional highway connects Zimbabwe and Malawi via a bridge over the Zambezi River located at Tete City. Outside the provincial capital, the province is sparsely populated with the lowest population density in the country (Instituto Nacional de Estatística 2009a).

The official language used in Tete is Portuguese. Portuguese is also the language of education, with materials and instruction being primarily delivered in that language. However, the population of Tete province is largely multilingual, speaking one or more

languages of African origin at home, with Portuguese being used at home by only a small minority of the population. The three most prominent languages (and estimated percentage of speakers) in the province are Nyanja (46.5%), Nyungwe (27.5%) and Sena (11.4%) (Instituto Nacional de Estatística 2009a).



Figure 1: Tete Province borders three countries and three other Mozambican provinces.

### 1.3 Research questions and rationale

The research questions for this thesis grew out of my interest in the writing practices that I saw in the early days of my observation in a Mozambican primary school where the language of instruction was Portuguese, a second language (L2) for most of the students<sup>1</sup>. Although it was apparent that the students did not have the ability to communicate confidently in the language of instruction, the lessons were almost entirely in Portuguese and the students seemed to be able to fulfill all the classroom requirements. Students who struggled to respond with even one-word answers to my Portuguese questions outside the classroom were busily engaged in filling their notebooks with Portuguese text while in the classroom. What seemed to be happening was that the teacher was putting texts onto the chalkboard which the students would then copy into their notebooks. Since they were not

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<sup>1</sup> It was not possible to determine the exact status of Portuguese in the students' linguistic repertoire. L2 is used as shorthand here for a language that is not a person's home or primary language.

able to communicate confidently in Portuguese, the teacher led them in written exercises that mostly consisted of rote copying. The term used in this thesis to describe the movement of texts from the textbook to the chalkboard to the notebook is ‘resemiotization’, a term popularized by Iedema (2001; 2003; 2009) to describe ‘how meaning making shifts from context to context, from practice to practice, or from one stage of a practice to the next’ (Iedema 2003:41). The objective of my research became to better understand resemiotization in the writing practices within the L2 classroom. Using a broadly ethnographic approach which included direct observation and documentation, I hoped to get a better understanding of how students wrote in these Mozambican L2 classrooms.

The questions I address in this research include:

*Table 1: Research questions*

1.	How does resemiotization materialize in writing practices in the Mozambican primary classroom?
2.	To what extent can resemiotization be seen as creative imitation in the Mozambican primary classroom?
3.	What is the relationship between writing and the other modes of communication in the Mozambican primary classroom?
4.	What is the role of ritual in facilitating second-language (L2) writing practices in the Mozambican primary classroom?

By addressing these questions, this research provides insight into multimodal classroom practices in the context of L2 education. This research extends multimodal theory through in-depth analysis of processes of resemiotization (Iedema 2003) in which texts are copied and in the process changed. Classroom practices are shown on one hand to be reductive since each copy is a reduced imitation of the original, but these same practices often involve creativity and the use of a variety of communicative resources. This research reveals that even in instances of rote copying, teachers and students frequently find space for creativity. This research also addresses the important role of ritual (Bernstein, Elvin & Peters 1966; Bourdieu 1991; McLaren 1999; Thesen 2008) in organizing and facilitating education in situations in which the language of instruction is not well understood by the students. The types of copying practices that are authorized in the Mozambican classroom are shown to

be in tension with teachers' attempts to communicate meaning to the students using their home language and non-written communication.

#### 1.4 Thesis outline

Chapter 2 describes the context of L2 education and the theoretical framework for this research. The chapter begins with a discussion of the educational and linguistic environment in Mozambique which is characterized by the privileged position of Portuguese and the ambivalent position of home languages in education (Hyltenstam & Stroud 1993; Stroud 2002a; Chimbutane 2009). Then, the perspective of social semiotics and multimodality (Jewitt 2009; Kress 2010) is discussed, and their use in this thesis is explained to account for the multiple forms of meaning-making that take place in the classroom. The term resemiotization (Iedema 2003) is introduced and shown to account for the ways in which texts move through the classroom in a text-chain. Chapter 3 outlines the methodology used and describes the research site, Tete, in more detail. My background in Tete and my former involvement with SIL Mozambique are discussed. Principles of ethnographic fieldwork and multimodal ethnography are outlined. Ethical issues that arose are considered. Chapter 4 begins the analysis section of the thesis, focusing on chalkboard writing. The chapter argues that teachers resemiotize textbook texts onto the chalkboard in a process that is at once reductive and expansive. While the resulting text is a reduced representation of the text upon which it was based, it also serves as a focal point for an expansive range of multimodal practices that surround it. I argue that resemiotization is characterized by mimesis (Mbembe 2004), that is, the teacher and students replicate the textbook and chalkboard in a process that is both imitative and creative (Kemp 2006; Pennycook 2007). Chapter 5 analyzes the text-chain in its entirety with initial focus on one particular lesson, followed by in-depth discussion of various aspects of the text-chain. The chapter shows resemiotization in action by following the text-chain in several Mozambican classrooms. The intricately designed text in the textbook is reduced to a simple block of hand-written text in possibly two colors on the chalkboard. The students reduce that text further by omitting parts of the text or by eliminating text altogether and engaging in pseudo-writing. Due to the unfamiliar language of instruction, the scarcity of textbooks, and the limited class time, semiotically-rich texts are reduced. Chapter 6 focuses on drawing as a special form of writing. The chapter argues

that drawing, due to its distinctive affordances (Kress & Van Leeuwen 2006:123), is a special form of resemiotization in which creativity is more prominent. Also, drawing seems to enable the teacher and students to diffuse the tension and monotony of classroom ritual through playful activity (McLaren 1999). Finally, drawing reveals that the object of resemiotization can reside in an idealized 'school-world' or in the everyday world of the student (Taussig 1993). Chapter 7 looks at the multimodal and multilingual practices of one teacher across three different lessons. The chapter argues that the teacher's emphasis on student comprehension causes her to 'break' the text-chain by using three interrelated strategies: the use of the students' home language, references to the students' world outside the classroom, and communicating through modes other than writing. These practices scaffold (Sharpe 2006) the written text-chain while also decentering it in her lessons. Chapter 8 concludes with a summary of the main findings and directions for further research.

## 2 Theoretical framework

This chapter outlines the theoretical framework used in this thesis. The chapter begins with a discussion of the educational and linguistic environment in Mozambique which is characterized by the privileged position of Portuguese and the ambivalent position of home languages in education (Hyltenstam & Stroud 1993; Stroud 2002a; Chimbutane 2009). Then, the perspective of social semiotics and multimodality (Jewitt 2009; Kress 2010) is discussed and their use in this thesis is explained to account for the multiple forms of meaning-making that take place in the classroom. The term resemiotization (Iledema 2003) is introduced and shown to account for the ways in which texts move through the classroom in a text-chain. The data analysis in the following chapters expands on current uses of the term resemiotization. It engages in detailed analysis of examples of resemiotization in the Mozambican classroom and shows the ways in which they are shaped by educational ritual (Bernstein, Elvin & Peters 1966; McLaren 1999; Thesen 2008). Finally, the concept of ‘mimesis’ (Mbembe 2004; Pennycook 2007) is used to show how resemiotization is both imitative and creative. In summary, the theoretical framework of this thesis employs a social semiotic perspective to analyze instances of mimetic resemiotization in the Mozambican classroom. Central to these practices is the idea of a ‘text-chain ritual’ which I use to describe the ways that teachers facilitate lessons marked by large class sizes, material constraints, and L2 education.

### 2.1 Challenges of L2 education

Universal primary education has been the goal in Mozambique since independence from Portuguese colonial rule. However, the complex multilingualism in the country and hegemonic role of Portuguese have created challenges for educators.

#### 2.1.1 Portuguese and multilingualism

Portuguese is recognized as the only official language of Mozambique. It started as a colonial language but has over time been indigenized (Firmino 1995; Stroud 2002a; Firmino 2010). Although Portuguese is the declared official language, Mozambique is characterized by multilingualism with more than 17 African languages in use. This was an estimate by a task force established by *O Centro de Estudo das Línguas Moçambicanas* (NELIMO) at the



*Universidade de Eduardo Mondlane* (NELIMO 2000). Other European as well as Asian languages are also present in the country. Although the Mozambican constitution refers to the African languages as ‘national languages’, they are primarily regional in character, frequently crossing national and provincial boundaries. From 1997 to 2007 the number of people claiming Portuguese as their home language<sup>2</sup> increased from 6% to 10% (Instituto Nacional de Estatística 1997; Instituto Nacional de Estatística 2009b). The census calculated three sets of data related to the Portuguese language (Table 2). First, there is the number of Mozambicans who claim to speak Portuguese as their home language. Second, there is the number of Mozambicans who claim to primarily speak Portuguese at home. Third, there are those who claim that they know Portuguese.

*Table 2: Portuguese use in Mozambique (Instituto Nacional de Estatística 1999; Instituto Nacional de Estatística 2009a)*

<b>Portuguese</b>	<b>Home Language</b>	<b>Speak at home</b>	<b>Know</b>
Total	10.7%	12.8%	50.5%
Male	11.9%	14.1%	60.0%
Female	9.5%	11.5%	41.7%
Urban	26.4%	35.7%	81.0%
Rural	3.5%	2.2%	36.3%

The gap between urban and rural speakers is wide with 81% of urban dwellers claiming to know Portuguese compared to just 36% in rural areas. The rural/urban divide is significant for Tete province where the vast majority of the population lives in rural areas (Instituto Nacional de Estatística 2009c; Instituto Nacional de Estatística 2009d).

Portuguese is widely used across Mozambique, and the language plays a vital ideological role. Portuguese is recognized in the country’s constitution as the official language while national languages, that is, languages of African origin, are recognized as part of the cultural

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<sup>2</sup> Various terms are used in the literature to refer to a person’s first or home language. In Mozambique the common term is *língua materna*, ‘mother tongue.’ This thesis gives preference to the terms ‘home language’ and ‘local language’ to refer to the language used outside of educational contexts.

and educational heritage as well as carriers of national identity (República Popular de Moçambique 2004). During the colonial period, Portuguese was an instrument of social exclusion (Marshall 1993:72), and in the years leading up to Mozambique's independence in 1975, the Portuguese language kept the majority of Mozambicans from having full rights in the colony. Consequently, the adoption of Portuguese at Independence by Mozambique was 'a contradictory process' which promoted national unity even while marginalizing national languages (Firmino 2010:1). Colonial languages have continued to serve a hegemonic role for the post-colonial ruling elite in countries like Mozambique even while these languages are changing structurally and socio-symbolically (Firmino 1995:53).

Following Independence, Portuguese was used as an ideological tool to reinforce the identity of a new country and the *novo homem*, 'new man', envisioned by Mozambique's leadership (Stroud 2002a:262). Portuguese moved from being the language of the oppressor to the language of national unity, with indigenous languages being perceived as carriers of tribalism and societal fragmentation. According to Stroud (1999:349), '[t]he nation-state is born through processes of homogenization and unification' and the use of Portuguese was central to these processes in Mozambique. Samora Machel, Mozambique's first president, promoted Portuguese not merely as a language of wider communication but as the official language, and he identified the use of Portuguese as a crucial factor in attaining national unity (Stroud 2002a:261–262).

The use of Portuguese to demarcate internal sameness and external difference has played an important role in the discursive construction of Mozambique. Those in power faced two tasks: reinforcing a national identity while at the same time differentiating the nation from those around it (De Cillia, Reisigl & Wodak 1999). Chimbutane (2009:227) claims that despite the government's efforts to promote *Moçambicanidade*, 'Mozambican-ness', most citizens continue to identify with local languages and cultural traditions.

While knowledge and use of Portuguese is concentrated in urban areas, various Bantu languages are spread across the country (for a classification of these languages see Guthrie 1971). As elsewhere in Africa, the linguistic map of Mozambique bears little similarity to the national and provincial boundaries that were devised during the colonial era of the

continent. Large regions of related languages cut across the country in six groups from North to South (Table 3).

Table 3: Principal Mozambican languages grouped by geographical and linguistic proximity (NELIMO 2000:4)

I.	Ciyao, Kimwani, Shimakonde
II.	Emakhuwa, Echuwabu
III.	Cibalke, Cinyanja, Cinyungwe, Cisená
IV.	Cimanyika, Cindau, Ciutee
V.	Gitonga, Cicopi
VI.	Citshwa, Xichangana, Xironga

The transnational character of some of these languages is seen, for example, in the case of Cinyanja, which is spoken in three provinces in Mozambique as well as in the neighboring countries of Zambia and Malawi (NELIMO 2000:85). The Mozambican population draws on these languages in varying degrees while communicating<sup>3</sup>. Although fluency in Portuguese provides an individual with access to mobility, prestige and economic capital (Firmino 1995), the day-to-day reality of the average Mozambican is that the majority of their communication takes place in one or more Mozambican languages rather than Portuguese (Chimbutane 2009:267).

The dominant language spoken in the region where this research was conducted is Nyungwe. Nyungwe (called *Cinyungwe*, in Mozambique<sup>4</sup>) is one of the major languages spoken in Tete province. The census estimates 27.5% of the province speak Nyungwe with the current number of speakers of Nyungwe as a first language estimated at 439,000 (Lewis, Simons & Fennig 2014). The highest concentration of Nyungwe speakers is centered around the city of Tete and the neighboring districts along the Zambezi River.

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<sup>3</sup> While Portuguese and Nyungwe were the most frequent languages at the site of this study, other languages were occasionally used. Discovering the linguistic repertoire of teachers and students was beyond the scope of this study.

<sup>4</sup> Note that the letter 'c' represents the /tʃ/ sound in representations of Mozambican languages, according to the conventions of the government (NELIMO 2000). The prefix for languages in this region is 'ci' thus 'Cinyungwe' and 'Cisená.' In this thesis, languages are referred to using their English spelling without prefix.

### 2.1.2 Addressing language issues for education in Mozambique

The heterogeneity of the language situation in Mozambique presents significant challenges for the educational system in the country. The director of Mozambican Education and Culture in 1975 envisioned Portuguese as not only a language of instruction but also a way to overcome ‘the barriers created by the mother tongues’<sup>5</sup> (quoted in Firmino 2010:9). However, since then, educators have increasingly recognized the value of bilingual education.

Determining which languages to use for education has not been simple in a multilingual context like Mozambique. Students and educators may use several languages in varying domains, and deciding which one should serve as the language of instruction is controversial. The languages that students speak at home often lack systematic development in education contexts as well as the institutional uptake necessary to make them suitable for teaching. Stroud (2002b:43) notes: ‘Because minority languages have been actively barred from anything but a minimum contact with educational institutions, much work remains to be done in order to bring them “up to speed” so that they can be used in such contexts.’ In the case of Mozambique, these so-called minority languages are in fact majority languages if the number of speakers is counted. The work which Stroud identifies as needing to be done for these languages includes a shift in status through ‘intellectualization’ and ‘officialization’, but it also requires the systematic production and distribution of teaching materials.

In an effort to improve educational outcomes, Mozambican educators began experimenting with bilingual education in 1993 (Benson 2005:250). Sixteen languages were chosen for development by provincial educators (Benson 2004:51). In Tete province, three languages were chosen from this list: Nyanja, Nyungwe and Sena. In 2005, Benson (2005:252) praised Mozambique’s efforts to implement bilingual education saying that Mozambique is ‘following a jagged path leading from experimentation to implementation.’ As of 2011, however, Chimbutane (2011) laments the fact that of the more than 10,000 primary schools

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<sup>5</sup> Portuguese transcription: *A Língua Portuguesa é o meio de comunicação entre todos os moçambicanos que permite quebrar as barreiras criadas pelas línguas maternas.*

in Mozambique, there were still only about 200 schools in the entire country that had implemented a bilingual program. In the province of Tete, after roughly two decades of experimentation with bilingual education, only a dozen or so schools out of hundreds have begun implementation. Despite a considerable amount of curriculum development and a general awareness that bilingual education is on the horizon, actual implementation has been limited and future expansion looks to be extremely slow.

What are the explanations for this delayed rollout of bilingual education? Transitioning to bilingual education is more than just a change to a new language of instruction. The move toward local languages can be seen as a move away from *Moçambicanidade*, 'Mozambican-ness' (Chimbutane 2009:227). The ruling elite, for whom Portuguese has long been seen as a strategic tool in 'consolidating national unity', continue to have an ambivalent relationship to African languages. For example, teachers that I interviewed complained that in comparison with when they were in school, students today do not know Portuguese when they start school and persist in speaking local languages. Universal education policies in Mozambique have made education available to all but at the same time complicated the task of the educators, since it is no longer just the Portuguese-speakers sending their children to school. In some cases, parents and educators perceive local languages as not suitable for education. While educators generally agree that bilingual education is good for students, many Mozambicans feel that a move toward the local languages is a move away from progress (Chimbutane 2009:38). It is counter-intuitive to some that home language literacy results in higher levels of learning as well as paving the way for success in mastering Portuguese. Portuguese is still seen by many as the language of economic and social mobility. Some parents believe that bilingual education is not a means to help their children but rather an attempt to marginalize them. Finally, Chimbutane (2009:212) discovered that a deeply ingrained 'ideological assumption that African languages are incapable of conveying technical and scientific knowledge' can mean that parents believe that bilingual education undermines attempts to educate children.

In addition to this mix of perceptions, there are many pragmatic factors that undermine the use of African languages in education. Textbooks and teacher manuals must be created for language communities that do not have a tradition of writing and reading their language. A

national education system that is already overburdened and struggling to deliver content in a single language is now asked to translate, print and distribute everything in more than a dozen languages (Chimbutane 2009:101). Additionally, from childhood, teachers have been immersed in educational methodologies that are tailored to colonial languages and Western teaching methods. Asking teachers to begin delivering lessons in a language in which they are not confident writers can create anxiety. When interviewed about the possibility of transitioning to teaching in Nyungwe, one teacher with more than 30 years of experience repeatedly said, *Custa!* 'It's difficult!' (Interview Extract, Joana, May 16, 2012). As will be shown in this thesis, a move from Portuguese to the local language is, at this point in time, often a move from written to oral didactic methods and from text-centered lessons to more student-centered lessons.

Using the local language can be liberating for students. Evidence from this research showed that students responded to teacher questions with much more enthusiasm when using their home language (see Section 4.4). From the teacher's perspective, however, this can sometimes be threatening. A large classroom of relatively quiet students can become a noisy group when allowed to use their home language. The mobility of many teachers also undermines their ability to converse well in the local language in a given area. Interviews with several teachers at the school where this research took place showed that many of them came from different parts of the country. This means that teachers can be assigned to an area where they are not as fluent in the local language as their students. These factors could hamper plans to implement bilingual education. Among the teachers I spoke with, there is general agreement that bilingual education is best for students, but that does not mean it is necessarily easy for educators. Thus, after more than twenty years, bilingual education continues in the experimental stage rather than being widely implemented.

In a document published by the Mozambican Ministry of Education, entitled *Plano Curricular Do Ensino Básico* (INDE/MINED 2003), 'Curriculum Plan for Basic Education', there is a section of curricular 'innovations'. One concept from that document that has helped validate local language and culture in the classroom is known as *currículo local*, 'local curriculum'. *Currículo local* is defined as:

A time for the introduction of local content that is judged as relevant for the adequate insertion of educating in the respective community (INDE/MINED 2003:27).<sup>6</sup>

*Currículo local* will be discussed in greater detail in Chapter 4. To summarize this section, Portuguese-medium instruction creates challenges for education in Mozambique. While Portuguese is the language of education and holds a hegemonic role in the country, the majority of Mozambicans use one or more African languages in daily life (Chimbutane 2009). Implementation of bilingual education is slowly being rolled out in Tete province.

## 2.2 A social semiotic approach to classroom writing practices

Social semiotics is an area of academic enquiry which is concerned with how people communicate using a wide range of semiotic resources (Van Leeuwen 2005). Semiotics refers to signs, that is, different ways that humans communicate. While communication is popularly thought to take place using language in the forms of speech and writing, there are many types of communication that take place without language. When a person gives a thumbs-up sign, for example, it can mean different things depending on the context. A person could be agreeing with something that someone has said, or they could be holding their thumb up on the side of the road hoping to hitch a ride. Everyone communicates all the time using gestures, facial expressions, drawings, and tone of voice. Social semiotics analyzes these various modes of communication. Social semiotics is especially indebted to the linguistic theories of Halliday (1978), who in the latter half of the 20<sup>th</sup> century moved from talking about linguistic grammars and rules to analyzing how speakers make use of linguistic resources. The thumbs-up example demonstrates that meaning is shaped by those who use it. In certain cultures, a thumbs-up gesture can even be considered rude or obscene. Thus, a gesture with the thumb can signal approval, a request, or an insult, depending on how it is being used. In summary, communication takes place with more than language, and the meanings of the various signs employed are interpreted based on social practice and particular contexts.

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<sup>6</sup> Portuguese text: *[U]m tempo para a introdução de conteúdos locais, que se julgar relevante para uma inserção adequada do educando na respectiva comunidade.*

### 2.2.1 Multimodality, modes, and affordances

One branch of social semiotics is concerned with multimodality (Jewitt 2009; Kress 2010). Multimodality refers to the ways in which communication typically makes use of more than one type of semiotic resource. Returning to the example of the thumbs-up gesture, a person wishing to express their approval to someone might do so by giving a thumbs-up gesture while smiling and saying, 'That's great!' In this single communicative act there are three modes being used: gesture, facial expression and speech. These semiotic resources are referred to as 'modes'. A mode is a material resource for meaning-making which has developed socially accepted uses over time. Modes can be used alone or in combination to communicate according to what the sign-maker considers most apt at the time (Kress 2009:54). Resources like images, layout, typography and color can also be used by sign-makers in communication (Van Leeuwen 2011:668). Iedema (2003:33) identifies two key issues that have inspired a trend towards a multimodal approach to social semiotics: 'First, the decentering of language as favoured meaning making; and second, the re-visiting and blurring of the traditional boundaries and roles allocated to language, image, page layout, document design, and so on.' The decentering of language brought about by the proliferation of media technologies in recent decades has been a consistent theme in multimodal scholarship (Kress & Van Leeuwen 2006; Archer 2006; Kress 2010). Digital media that combine text, images and other modes (Jewitt 2009) require different analytical tools from those traditionally used by linguists (O'Halloran 2004; Dicks, Soyinka & Coffey 2006).

Differentiating between modes can be problematic. Depending on the level of analysis, it may suffice to distinguish between broad categories such as writing and speech to refer to modes. In other circumstances mode can be used to distinguish between very specific types of speech. An example of this is Newfield's (2009) analysis of transmodal semiosis in which she distinguishes between specific forms of speech (such as reading aloud and improvisational speech acts) and specific forms of writing (such as hand-written poems and type-written poems) based on the materialities involved.

In multimodal analysis, the term 'affordance' is used to distinguish between modes. The term goes back to Gibson (1977) who sees affordances as the opportunities for action that are offered by the environment. In multimodal analysis, this term has been extended into



the study of communication to refer to a mode's 'potentials and constraints for making meaning' (Bezemer & Kress 2008:171). Other definitions of affordances include 'the question of potentials and limitations of a mode' (Kress 2010:84), and 'the potentials for representational and communicational action by their users' (Kress 2003:5). Van Leeuwen (2005:5) sees affordances as 'meaning potentials' which have both material and social characteristics. What can be done with a particular mode is, in this sense, shaped by the materiality of the mode and by what is customarily (socially) permissible with that mode. In summary, the term 'affordance' refers to the material and social potentials and constraints of a particular mode.

In multimodal analysis, the word 'text' refers to more than just words on a page (Jewitt 2009:42). Texts extend beyond traditional print to encompass 'the everyday practices of "ordinary" humans' (Kress & Van Leeuwen 2010:24). In this thesis, texts will often have an alphabetic component, for example, a page from a textbook that includes words and images. However, texts without any alphabetic representations will also be considered. This includes, for example, drawings, songs, or lectures. Texts are framed in some way so that those involved in making and interpreting the signs understand them as a unit (Kress 2010:149). For the purposes of this study, a text is defined as any socially situated sign which is framed in some way.

Writing and drawing are central objects of analysis in this thesis. In terms of social semiotic theory, writing is one of many semiotic resources that we make use of in communication. It is itself multimodal, often including such features as design and color (Bezemer & Kress 2008:171). As an inscriptional practice, drawing shares many of the features of writing (Mavers 2009). When the two modes co-occur, they vary with regard to the degree to which one supports the other (Kress & Van Leeuwen 2006). For example, a drawing may be accompanied by a caption, or writing may be accompanied by an illustration (Kress 2010:47–48).

### 2.2.2 'Language' in a social semiotic analysis

The term 'language' is ambiguous in a social semiotic analysis. Language in the form of speech and writing operates as a semiotic resource for meaning-making. However, signs can

also be made *in* a language, that is, a particular culturally situated set of resources for communicating through the modes of speech and writing. Thus, Kress suggests avoiding the general term 'language' and instead referring either to speech or writing:

For me it is now a real question whether we can talk about some phenomenon called 'language' in any serious sense at all ... [m]aybe it is essential to talk of speech and its regularities as one mode, and writing and its regularities as another (Kress 2003:32).

Newfield (2009:77–78, 172) likewise argues in favor of differentiating between speech and writing when engaged in semiotic analysis. Language is too broad a term. It conceals the fact that many of the practices which we refer to as language have different material and social characteristics. Speech, which we process with our hearing, is temporally organized and thus quite different from writing which we interpret with our eyes, and which is spatially organized.

What then is the position of language in a social semiotic study like this one? First, following Kress and Newfield, it is preferable to not refer to language as a mode. Instead, as argued above, it can be said that language is realized modally as speech or writing. Second, language needs to be recognized as a set of social conventions that exert influence on sign makers with regard to which modes they will use. For example, in the case of the students observed in this study, speech was almost always realized in the local language, Nyungwe. Writing, on the other hand, was almost exclusively in their second language, Portuguese. During this research, there were no examples of Nyungwe being written either on the chalkboard or in notebooks.

## 2.3 Resemiotization: what happens when signs move

### 2.3.1 Translations between different signs

In order to better understand writing practices in the Mozambican primary school classroom, it is necessary to analyze writing not only within a wider context of multimodal practices, but also to be able to account for the ways in which texts are derived from other texts. The ways in which Kress and Iedema discuss this topic are derived from the work of Jakobson ([1959] 2012:114) who identifies three ways of interpreting verbal signs. These are intralingual translation or rewording, interlingual translation (that is, translation proper

from one language to another), and intersemiotic translation or transmutation. While Jakobson expands on the ideas of intralingual and interlingual translation, he says little about intersemiotic translation other than to define it as ‘an interpretation of verbal signs by means of signs of nonverbal sign systems’ (ibid, 114). Jakobson’s analysis rests on two binary distinctions. First, he distinguishes between verbal and non-verbal signs. Second, he distinguishes between signs that are made in different languages. The application of his categories is, however, problematic in this research. It is not simple to distinguish between verbal and non-verbal writing on the chalkboard, for example. Also, speech is often part of a multimodal ensemble that contains non-verbal elements such as gesture, posture, and intonation. Splitting things up between languages is likewise difficult. Teachers and students often move fluidly between at least two languages while speaking. A Portuguese sign on the chalkboard, for example, can be the basis for a translation into a drawing which is not explicitly associated with any language. Jakobson’s third category seems to be the most applicable with modification. Rather than saying that intersemiotic translation is an interpretation of verbal signs by means of nonverbal signs, it is more helpful to say that intersemiotic translation is simply the translation of one sign into another without specifying whether they are verbal or non-verbal. Iedema (2009:139) seems to use the term ‘intersemiotic translation’ in this sense when he identifies it with transitioning meaning across different ‘structural phenomena’ without specifying whether these are verbal or associated with a particular language. Kress (2010:43) associates this third category with ‘transformation’ if the move is between similar modes and ‘transduction’ if the move is between different modes.

The ways in which Mozambican teachers and students transform writing into speech, written text, and drawings may all be considered examples of intersemiotic translation. Some multimodal analysis tends to place more emphasis on distinguishing between modes, which is less helpful for this analysis. Newfield coined the term ‘transmodal semiosis’ to refer to ‘a process in which modes of representation and communication are changed’ (Newfield 2009). Transmodal semiosis is the equivalent of Kress’ transduction. For example, in Newfield’s analysis of English and Zulu poetry writing by South African teens, she identifies several transmodal moments, such as the transformation of a printed poem into a

verbal retelling (Newfield 2009). In such cases, there is a clear difference between the modes of writing and speech. However, there are several instances in which the notion of mode breaks down, as in the case of a hand-written poem being transformed into a typed version of the same poem. Since handwriting and typewriting in her analysis are both considered instances of the mode of writing, there is no way to call these examples of transmodal moments. Instead, Newfield, following Kress, calls these transformational moments. This analysis reveals an awkwardness in the binary distinction between translations that occur within a mode and those between different modes. Consequently, Newfield (2009:144) found the identification of purely transmodal moments to be 'tricky and uncertain'. Since many of the transformations observed in this research were between varying types of writing, the term 'transmodal semiosis' was problematic. For example, a teacher may write on the chalkboard with chalk, or write on a notebook with a pen. In one case, a teacher was observed writing words on the ground with his finger (Fieldnotes, March 12, 2012). In terms of affordances, these have very different materialities and social uses. Even drawing may be considered a type of writing since it uses similar materials and sites of display and is used socially for similar purposes, i.e. completing a classroom lesson.

As will be seen in this thesis, the various sorts of writing being described have 'different materiality, logics of time and space, of sequence and simultaneity' (Kress 2009:58). For example, chalkboard writing occurs while the intended readers are present. The text is written on a vertical board with chalk and in cursive. The textbook, on the other hand, is composed by distant authors, using print and images. The affordances of each type of writing, their materiality and their social use, have little in common. Since many of the transformations being observed in this research were between different types of writing, the notion of 'transmodal semiosis' wouldn't apply. As a result, I chose to use the concept of 'resemiotization' (Iedema 2003) to describe the transformations I observed, since it focuses on the changes that occur as signs are reconfigured in new settings without distinguishing between the modes of the signs.

### 2.3.2 Resemiotization

Iedema (2003:41) states that resemiotization 'is about how meaning making shifts from context to context, from practice to practice, or from one stage of a practice to the next.' In

doing so, resemiotization is able to address Jakobson's concept of intersemioticity ([1959] 2012:114) while placing less emphasis on distinguishing between modes. Resemiotization builds on multimodality by moving beyond a focus on texts to an analysis of 'the choice of material realization of meaning' and 'the social dynamics that shape our multimodal meanings as they emerge' (Iedema 2003:40). Resemiotization, then, is concerned with why certain material resources are used rather than others in particular social situations.

Resemiotization has served as a fertile theoretical concept for scholars in the fields of linguistics, education and multimodality. O'Halloran (2011) interprets resemiotization as being embedded within multimodal discourse where meaning shifts as new resources are brought into play. Resemiotization can also result in metaphorical expansion of meaning as it moves into new contexts. Stein (2008) notes that resemiotization processes transform not just the meaning as it shifts between different material realizations but the meaning-maker as well. Stroud and Mpendukana (2009:371) identify signage in the linguistic landscape of a South African township as instances of resemiotization. Resemiotization in these cases results in meaning not just moving through different environments but also being 'encoded in different semiotic artifacts.' Stroud and Kerfoot (2013) see the foregrounding of the concept of resemiotization as a means to validate multilingual and multimodal resources of higher education students, thereby shifting the focus of discourses about student performance from hegemonic languages and linguistic forms to the dynamic semiosis employed by meaning-makers.

Iedema (2003) gives three examples of resemiotization. The first example shows how a teacher's initial diagnosis of a disabled child is progressively bureaucratized through tests, reports and diagnoses. As this information moves through the system it becomes more and more distant from the original diagnosis, especially as it takes the form of increasingly rigid forms of communication (Iedema 2003:42). The second example comes from the writings of Latour who describes an automatic door closer which evolves through a series of resemiotizations from 'someone asking those arriving to shut the door behind them, to a written notice saying 'please keep this door closed', to a hydraulic door-closing device' (ibid). The third example is that of a health facility planning project in which plans become increasingly reified and harder to change as they proceed through the stages of the project,

and 'the original face-to-face interaction becomes rematerialized in a less ephemeral way as printed writing' (ibid). In each of these cases, the progression described is from less tangible signs, like speech, toward more tangible signs like writing that are increasingly distant from the originating sign. Each of these examples highlights Iledema's interest in the way that informal and local forms of talk become increasingly formalized as they progress through a bureaucratic system (see also Kell 2006).

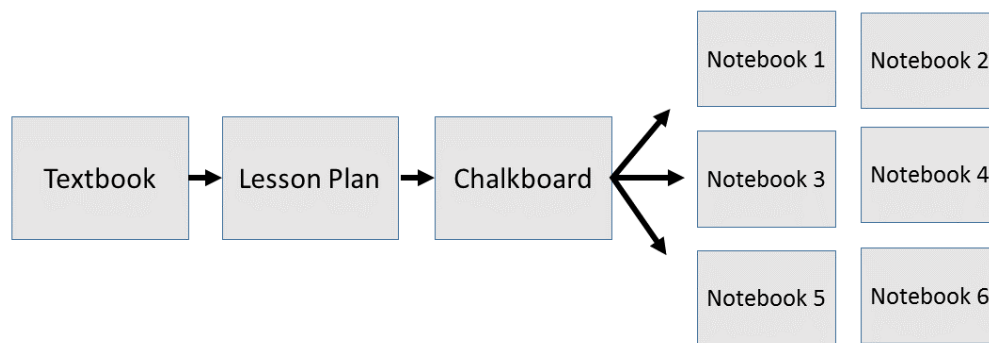
## 2.4 Extending the notion of resemiotization

While Iledema outlines in broad terms the way signs move through institutional systems, he gives less attention to the details of resemiotization and the ways in which signs are transformed as they move through different social practices. This is where this thesis attempts to extend the concept of resemiotization. The analysis gives a detailed account of the processes texts undergo as sign-makers resemiotize them in a specific context. One result is that this analysis of resemiotization reveals something new about Iledema's process of increasing reification. While Iledema sees resemiotization as resulting in local texts becoming increasingly distant and formal, this thesis shows set texts, principally the textbook, being resemiotized into highly transitory and local forms of semiosis like chalkboard writing and speech. This thesis also draws attention to the ways in which pedagogical ritual shapes writing practices and their attendant resemiotization. Finally, the notion of mimesis reveals how instances of resemiotization can be at once imitative and creative.

### 2.4.1 Following the text-chain

Some scholars have studied the way that texts in the classroom are part of a larger text-cycle (Bhattacharya et al. 2007; Kress 2004). Since the text-cycle observed in this research was not actually cyclical, I have opted for the term 'text-chain' to refer to a more or less invariant practice in which a teacher copies a text from the textbook to the lesson plan and then to the chalkboard. Students then copy the text into their notebooks. The term text-chain implies that a text is in some way connected to a previous text as well as a later text. The writing practices observed in this research were links in a chain of resemiotization that originated outside the classroom and often continued in various ways after the lesson was ended. In this thesis, the term 'site of display' (Jones 2009) is used to refer to the various

places where the text-chain appears during resemiotization. Jones describes a site of display as not just the place where a sign appears but also as the interaction that occurs between the display and those who view it. In the text-chain, the site of display is a sort of theatrical stage where writing is performed (Deumert & Lexander 2013).



*Figure 2: Resemiotization in a text-chain*

Looking at just the written mode, the text-chain is illustrated in Figure 2. A text undergoes a series of resemiotizations between the textbook and student notebooks. In practice, the various links in the text-chain are also resemiotized into other modes such as speech and gesture.

#### 2.4.2 Ritual

This thesis situates the notion of resemiotization within a framework of institutional ritual. Ritual refers to ‘a relatively rigid pattern of acts specific to a situation which construct a framework of meaning over and beyond the specific situational meanings’ (Bernstein, Elvin & Peters 1966:429). Ritual can range from interpersonal exchanges like greetings or apologies (Goffman 2005) to complex religious or political events. Following Rampton (2006:173), this study distinguishes broadly between interaction ritual, that is, focused interactions between individuals such as a teacher and a student, and institutional ritual, such as classroom lessons or school assemblies, while also acknowledging that there is not a clear-cut distinction between the two.

What is the purpose of educational ritual?

The symbolic function of ritual is to relate the individual through ritualistic acts to a social order, to heighten respect for that order, to revivify that order within the individual and, in particular, to deepen acceptance of the procedures used to maintain continuity, order and boundary and which control ambivalence towards the social order (Bernstein, Elvin & Peters 1966:429).

In the Mozambican classroom, institutional rituals relate students and teachers to the educational system, and by extension the Mozambican state, while increasing respect for and submission to that order. The teacher and students know what can and should be done through habitual reinforcement of practices which are repeated several times a day in classrooms. This ritual proceeds quite independently of whether or not the participants understand the meaning of the things they are saying and writing. To give an example, when I as the researcher entered the classroom, my appearance would initiate a greeting ritual similar to this one recorded in a Grade 4 classroom (Lesson 9):

(Researcher enters a classroom full of students)

One boy speaks: *Vamos todos levantar!* 'Everyone stand up!'

(students all stand rigidly by their desks)

All the students: *Bom dia, Senhora Professora!* 'Good morning, Lady Professor!'

Researcher: *Bom dia, meninos.* 'Good morning, children.'

All the students: *Muito bem, obrigado.* 'Very well, thank you.'

(Fieldnotes, March 9, 2012)

The ritual continues even though the meaning of the words is misunderstood. First, they greet me using the female form and address me as a teacher although I am male and not a teacher. The legitimate person to walk through the door would have been a female teacher since all the teachers in this grade were female. When, instead of using the expected greeting: *Como estão?* 'How are you?', I instead say: 'Good morning, children', the students reply, 'Very well, thank you.' My marginal status in the classroom as well as my unfamiliarity with the norms of that particular ritual highlight the ways in which habitual ritual practices carry on even when variations are introduced. The ritual moves forward not on the basis of it being understood but rather because it is recognized as legitimate by those who



participate (Bourdieu 1991:111,113). Students have learned how to act and what to say when a teacher walks into the room. Changing the ritual only slightly by a different person coming through the door and a changed greeting does not prevent the ritual from progressing.

One of the most important elements for maintaining order in school is language. The authority of language is not inherent in language itself but rather is derived from the institutions that use it (Bourdieu 1991:107). In particular, the use of Portuguese as the language of instruction for a predominantly Nyungwe-speaking student body results in a situation in which only a small group, the teachers and some students, have mastery over the authorized language for educational ritual (Bourdieu 1991:109). As discussed earlier, in Mozambique, being educated is often associated with mastery of Portuguese (Stroud 2002a; Chimbutane 2009). Local languages, on the other hand, have a more ambiguous position in the classroom. In interviews with teachers, the use of Nyungwe was sometimes portrayed as being at odds with the goals of education. For example, the assistant director stated that teachers were warned by provincial evaluators against using too much of the local language (Fieldnotes, March 9, 2012). The local language was also associated with disorder, seen in the contrast between the subdued students in the Portuguese-language classroom and the exuberant chatter of students during breaks.

Ritual serves as a way of framing the various stages of the text-chain, providing continuity and order to activities in the Mozambican classroom which are often linguistically ambiguous due to the use of the L2. Analyzing classroom practices in terms of ritual helps to explain ways in which teachers and students resist and transgress ritual forms. McLaren (1999:147) sees instances of student disruption as informal and unconscious resistances to oppressive school rules and the hegemonic distinction between educational rituals and daily lived experience. These resistances are faced by teachers who must uphold the rituals for the sake of maintaining the institution even while they seek different ways to diffuse the tension as 'a steam valve effect which [diffuses] growing frustrations in the class' (ibid).

Thesen (2008) identifies lectures in tertiary education as one example of educational ritual in which the teacher has the option to transgress the expected ritual by 'breaking the frame'

of ritual discourse. Lecturers have the option of tweaking classroom ritual for the purpose of temporarily siding with the students against the educational system. Thesen (2008:49) believes that ritual theory foregrounds 'the embodied, performed aspects of academic identity' by giving attention to the ways in which teachers consciously work within and transgress the expected ritual, which in turn makes it possible to bring an additional layer of meaning to classroom practices.

Rampton (2006:192) notes that ritual seems more evident in certain types of lessons rather than others. In the case of a German language-learning class in an English school, the use of the foreign language 'pushed students to become mere "animators", demanding levels of conformity and status renunciation – "unconditional allegiance" – unmatched anywhere else in the curriculum.' This effect is magnified in the Mozambican classroom where all lessons are taught in a language that is either a second or foreign language for most of the students.

In summary, the use of the term 'ritual' draws attention to the ways in which instances of resemiotization are shaped by institutional authority. The language of instruction serves a powerful function by placing constraints on the authorized language of the classroom and predisposing the teacher towards certain ritualized activities that can be achieved with students' limited proficiency in the L2. Ritual theory also sheds light on the ways in which teachers and students transgress customary practices while resisting restrictive educational rituals.

#### 2.4.3 The mimetic nature of resemiotization

The process of resemiotization results in meaning being replicated in some way as it moves across different modes, media and sites of display. Crucial to the understanding of resemiotization and the sorts of rituals that take place in the classroom is a nuanced understanding of the idea of imitation. What does it mean when we say that teachers copy texts from the textbook or that students copy the chalkboard text into their notebooks? Although texts are based on other texts they are never identical copies. Teachers choose selectively from the textbook to create their chalkboard text, and students in the process of copying engage in many creative and sometimes subversive activities to complete classroom

assignments. This thesis uses the term 'mimesis' to refer to the way in which resemiotization processes are both imitative and creative (Taussig 1993; de Souza 2003; Mbembe 2004; Kemp 2006; Pennycook 2007).

Halliday (1978) acknowledges that while speakers are capable of potentially producing an infinite variety of utterances, in practice language is often used in routinized ways employing similar phrases over and over. A view of language as both generative and routinized leads to a seeming contradiction: language, even while being routinized, displays continual examples of creativity (Pennycook 2007:583). Some theorists have termed the coexistence of imitation and creativity as mimesis. Mbembe (2004:376) writes, 'By mimesis, we should understand a capacity to identify oneself or establish similarities with something else while at the same time inventing something original.' While some define mimesis narrowly as imitation of an original (de Souza 2003), others see mimesis as always implying both imitation and originality (Taussig 1993; Kemp 2006; Mbembe 2004). Pennycook (2007) states that imitation, no matter how exact, always results in difference because the imitation always takes place in a new context.

Mimesis has a bearing on the analysis of resemiotic processes. If resemiotization is seen as mere imitation, then a teacher's chalkboard text, for example, can be judged as correct or deficient depending on how closely it adheres to the original. However, if resemiotization is seen as mimetic, then it is possible to ask what was imitated and what is original and why. Any text carries the imprint of the original as well as the imprint of the one who is copying it. The creative side of mimesis is a function of the sign-maker's interest and resources. Additionally, the sign-maker looks forward to the next recipient in the text-chain when creating a sign. The metaphor of a text-chain is apt then in showing the mimetic nature of resemiotization in which each sign is a link connected to both a previous and following sign. Any sign will show evidence of both the sign it was based on as well as the intended recipient and it will always be both imitative and creative in varying degrees.

## 2.5 Conclusion

This chapter has outlined the theoretical framework of this thesis. The writing practices analyzed are shaped by the particular educational and linguistic context in Mozambique in

which they exist. The hegemonic position of Portuguese in the Mozambican educational system as well as the ambivalent position of home languages in classroom practices shape and determine the sorts of writing practices that are possible. Classroom practices give evidence of a text-chain in which a formal and standardized textbook text is resemiotized in various sites of display including the teacher's lesson plan, the chalkboard and student notebooks. Resemiotization extends beyond the page to other semiotic systems including speech and gesture with teachers and students commonly creating multimodal ensembles of meaning. I have argued that resemiotization is framed by classroom ritual which gives shape and meaning to classroom practices. In addition, resemiotization is characterized by mimesis, that is, as meaning moves through social practices it carries with it vestiges of previous resemiotizations even while sign-makers anticipate later links in the text-chain.



### 3 Methodology

The purpose of this chapter is to describe the research site and the methods used in carrying out the research. This research is an empirical study of the writing practices of teachers and students in a primary school in Mozambique. Methods for gathering data consisted primarily of observation, fieldnotes, documentation, and interviews (Yin 2013).

#### 3.1 My personal background in Mozambique

The positionality of the researcher is an important consideration influencing the nature of fieldwork (Sultana 2007). The researcher, by being present, influences those being observed and the resulting data that is taken away from the site (Blommaert & Jie 2010:66). The site where I chose to do my research was near Tete City in Tete province, Mozambique. From 1998 until 2012, I was a member of SIL International assigned to the SIL Mozambique Branch. My family and I first moved to Tete City in 1999 to work on a Bible translation project. During that time, our family lived mostly in the provincial capital. We were based in Tete City until 2005 before transferring to another district. During a period of more than 10 years, I became familiar with the province and people of Tete. While working in Tete I became proficient in the variety of Portuguese spoken in Mozambique which was considerably different from the variety I had been taught in Lisbon in 1997. Almost from the first day, I attempted to learn Nyungwe, the dominant language in Tete City. However, people in the city were quite reluctant to speak Nyungwe with me, and so eventually I began to visit more rural locations finally settling on a village about two hours from the city where our family could stay and get more exposure to Nyungwe than we were getting in the capital. During our time in Tete, I became a comfortable although not fluent speaker of the Nyungwe language. My knowledge of Portuguese and Nyungwe proved to be helpful during my research.

#### 3.2 My involvement with SIL Mozambique

SIL International first established its presence in Mozambique in 1988. In that year, three linguists with SIL participated in the first seminar on orthography for Mozambican languages sponsored by NELIMO, a research wing of the *Universidade de Eduardo Mondlane* in Maputo. SIL registered as a non-government organization in 1992 under the name

*Sociedade Internacional de Linguística*, 'International Society of Linguistics' with offices in Maputo. SIL linguists from the US, Germany and South Africa served as visiting lecturers in linguistics at *Universidade de Eduardo Mondlane*. Additionally, SIL linguists engaged in a language survey in the central and northern provinces of the country leading to SIL teams being assigned to several language development and Bible translation projects (Personal correspondence with John Heins, October 30, 2014). SIL Mozambique's practices followed that of other work SIL International has engaged in around the world. According to the SIL International website, SIL personnel currently number more than 4,400 people from 86 countries. SIL's linguistic investigation exceeds 2,167 languages in over 100 countries (SIL International 2014). Because of its combination of linguistic investigation and Bible translation, SIL has been criticized by some linguists who consider the missionary aspect of SIL's work to be at odds with linguistic investigation (Dobrin & Good 2009).

My personal experience in Mozambique reflected this mix of missionary work and linguistic investigation. When I was assigned to the Nyungwe project in 1998, it was to serve as a coordinator for a Mozambican-led Bible translation project sponsored by a number of the local Protestant denominations. As such, I was involved in assisting a team of translators with translating the Portuguese New Testament into Nyungwe while at the same time engaging in a range of language development activities such as lexicography, collection of folktales and proverbs, and writers' workshops. Such activities were congruent with the type of postcolonial linguistics criticized by Errington in which there are 'widespread links between the work of linguistic description and Christian proselytizing' (Errington 2001:21). Although several years passed between my work with SIL and my research at University of Cape Town, my background with SIL undoubtedly influenced the way I approached my research in Mozambique. When I returned to Tete in 2012 for this research, my connection with SIL was known by provincial educators, but at the research site I was introduced as a researcher from the University of Cape Town and my previous work in Tete was not foregrounded.

### 3.3 Ethnographic fieldwork

The perspective I took in doing my research was influenced by the book *Ethnographic Fieldwork* by Blommaert and Jie (2010). According to the authors, ethnography as an

inductive orientation results in the development of a case study grounded in the researcher's observation that can be used to make theoretical claims about a larger class of phenomena (Blommaert & Jie 2010:12). As such, in their view, ethnographic fieldwork is grounded in a case study approach.

I found this to be helpful in preparing me for the vagaries of fieldwork. For example, they advised that fieldwork can contain 'long periods in which nothing seems to happen, and then suddenly all sorts of things co-occur rapidly and seemingly without structure or patterns' (Blommaert & Jie 2010:24). It indeed was the case that I was experiencing sensory overload at the beginning of my research. The plan that I had come up with before arriving in Mozambique turned out to be unworkable once I arrived. Because of my background in Tete, I had hoped to do research at schools where instruction was given in Nyungwe. However, when I arrived, the education officials that were assisting me preferred that I do observation at a monolingual Portuguese school, since there were few bilingual schools and they were still in the experimental stage. Without access to a bilingual school my initial research question, 'What literacy artifacts do teachers and students in Mozambique use and produce in the absence of bilingual education materials?' became difficult to research. Instead as I spent time observing in the classroom, the focus of my research began to shift to following texts as they moved from the textbook to the chalkboard to student notebooks, as well as observing the other modes that co-occur with writing.

The method for collecting data also shifted as I spent more time in classrooms. When I began, I sat at the back of the classroom and tried to record everything: making notes, taking pictures, shooting video and recording audio. As Blommaert and Jie (2010:28–29) note, 'The rule is: you start by observing everything and gradually start to focus on specific targets.' I became curious about the texts that were produced on the chalkboard and in the notebooks and how they were different from the texts they were based on. Soon, my observation became more focused on these chalkboard and notebook texts as well as the variety of other multimodal practices. This guided the kinds of data I recorded. The periodic photographic data records captured during this research, together with fieldnotes and interviews, allow for a fairly detailed reconstruction of the text and its production. There were times when the use of video rather than photos would have made it possible to trace



every change on the chalkboard as well as the accompanying modes of speech and gesture. However, in general, I felt that photographs and fieldnotes were sufficient to trace the writing practices observed. Dicks et al (2006:79) propose 'seeing the media produced by field researchers, whether these are images, sound or written records, not as themselves "data" but as ways of representing multimedia field data.' The lessons were multimodal, and the ways in which they were recorded were themselves multimodal, including photos, video, audio recordings, fieldnotes and transcriptions. These then must be themselves resemiotized into a thesis through the modes of text and image.

### 3.4 Ethical considerations

My position as an outsider doing research in a Mozambican school created many situations in which ethical considerations were foregrounded. As someone from the Global North doing research in the Global South, issues of 'access and equality' (Sultana 2007:374) were a constant during my time in Mozambique. These issues were by no means mitigated because of my previous experience in this region. As Sultana notes, even for someone who is from the area where research is being conducted, 'class and educational differences (i.e. material, social, political power differences) remain trenchant markers of difference, and often precondition exploitation in the research process' (ibid, 375). This was especially true concerning my relationship with students at the school who had no voice in whether or not I was allowed to observe them. Newfield emphasizes that finding ways to allow students' voices to be heard in this sort of research should be a priority (2009:93). Throughout my research, I attempted to engage with students informally through conversation and formally through structured activities. Unfortunately, there were very few instances in which students were comfortable enough or willing to speak with me beyond brief responses to my questions.

This research was approved by the ethics officer for the Department of Linguistics in accordance with requirements at the University of Cape Town. These requirements included protecting the identity of those observed, especially with regard to young subjects. At the research site, teachers and educators were informed of the anonymous and voluntary nature of their participation. In this thesis, pseudonyms are used for the school, its teachers and staff, and any students whenever possible. For photographs, faces and identifying

features of anyone appearing in the photos were obscured through blurring. A summary of this research will also be made available to local and provincial educators in Tete. Once my thesis is complete, I plan to visit Tete and present my findings to the Department of Education and Culture as well as at the local teacher-training institute by means of a PowerPoint presentation and description of my research and findings.

The methods that were used were in compliance with those required by the University of Cape Town and the Mozambican Ministry of Education. The principal ethical issues that arose during the research had to do with observation of students in the classroom and how to describe their practices without identifying the children personally. In one case, it was necessary to identify students by their real name for an analysis of how they write their names. In order to address this, the students' first names were used, but their surnames were not identified. With regard to interviews, I always clearly stated at the beginning of the interviews that the information shared by the interviewees was anonymous and only being used for purposes of research. The subject of my research was not particularly controversial and there were not any cases of behavior during my observation that could have been construed as unethical or inappropriate. As such I felt that my research was in compliance with UCT's requirements for ethical research. One issue arose during the second research trip. I asked the teachers if I might request notebooks from the students I had been observing. My reason for doing this was so that I could have a more sizable sample of each student's writing for my research. Each of the teachers readily allowed me to have a notebook from each of the six students being observed in their classroom. In exchange I gave the students a new notebook. While the students were not placed under duress to fulfill this request it is uncertain how much freedom they had to refuse the request. Overall, I struggled in this research to give voice to the students. While it was easy to converse with teachers and other adults, students were very reserved around me. This leads to an ethical dilemma since the voices of teachers were heard but the voices of students were not.

### 3.5 Gaining access to the research site

When I arrived in March 2012, Jeni Bister<sup>7</sup> took me to the provincial offices of the Department of Education and Culture (DPEC) where I was referred to the district offices of DPEC. We visited there and met with various individuals to discuss my research. A representative of the district office then accompanied us in a visit to a primary school where we met the assistant director of the school who granted me permission to engage in research at that school. While people at the higher levels of the department of Education and Culture might have been aware of my association with SIL, at the research site I was identified with the provincial authorities. I was presented to the assistant director of the school by a representative of the district-level department of education. The assistant director then presented me to each teacher and explained that I was a researcher from the University of Cape Town. As such it was thanks to a sequence of ‘hand-offs’ that I came to be positioned in the classroom as someone endorsed by the authorities in the Department of Education and Culture.

### 3.6 Description of research site and subjects

The pseudonym given to the school where I did my research is Kwadoka Primary (*kwadoka* is the Nyungwe word for sunset). The school is located less than 5 kilometers outside the provincial capital in a peri-urban zone marked by dense population settlement. According to the assistant director, Estevão, the school had 1,542 students enrolled in Grades 1-7 (Interview Data, Estevão, March 16, 2012). These were divided among 26 classes. The students that I observed were in Grades 3-5.

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<sup>7</sup> Jeni was a former colleague with SIL. She and I corresponded in early 2012 about possible research sites and she did a great deal of preparatory work visiting schools and speaking with local and provincial leaders on my behalf.

The composition of these grades was as follows:

*Table 4: Size and composition of Grade 3-5 classes at Kwadoka Primary*

Grade	Classes	Students	Male	Female	Average Students per Class	Approximate Age
3	3	188	101	87	62	9
4	2	133	62	71	66	10
5	2	165	101	64	82	11

The school grounds were comprised of six main buildings of block construction (Figure 3). Each building contained two classrooms with an interior size of 8m x 8m. Windows were covered by security bars but not glass or curtains, and there were frequent disruptions from both sudden rainstorms and the hot sun coming through the windows.



*Figure 3: A Kwadoka Primary building housing two classrooms*



*Figure 4: Interior of Kwadoka Primary classroom*

According to Estevão, about one-third of the students came from the neighborhood next to Kwadoka Primary. The rest came from similar neighborhoods nearby. These neighborhoods were primarily comprised of houses of either brick, cement block, or wood and daub construction. The interiors of the classrooms were sparsely decorated with only a single chalkboard and school desks (Figure 4). There were no decorations on the walls, partly because many of the classrooms did not have doors that locked. Teachers and students maintained them in neat condition, sweeping the classrooms and sometimes mopping them at the beginning of the day.

### 3.7 Two research trips

#### 3.7.1 Trip 1 – March 3-16, 2012

During my first trip to Tete, a school was selected for observation, permission was sought from the educational authorities, and I began my observation. I was able to visit Kwadoka Primary on Monday, March 5, 2012, and then begin my observation the following day on March 6. The assistant director of the school devised a schedule for me, and presented me

to each teacher before I entered the classroom. The teachers were in general friendly and helpful. I began by observing lessons at a desk in the back of the classroom and taking notes and photos in a haphazard manner. After a few lessons, it became apparent that the teachers were all using a similar methodology that involved writing on the chalkboard and lecturing from that text. By the end of the fifth lesson, I had settled into a pattern of photographing samples of the chalkboard, textbook, lesson plan, and student notebooks.

### 3.7.2 Trip 2 – May 7- 18, 2012

After the first trip, I realized that I had many samples of student and teacher writing but that I did not have any insight into what the students understood when they were writing. On this second trip, I determined to attempt to analyze the perceptions of the students and teachers about the writings they were doing. In order to do this, I first interviewed teachers, asking them about their experience as teachers and their perception of students today. Second, I attempted to set up sessions in which I would meet with a small group of students and try to discuss a text that they had studied earlier in the day. The interviews with teachers went fairly well. The teachers shared information about school when they were children, how they became teachers, and differences between education back then compared with today. The focus groups with the students failed to produce much helpful information. The students seemed acutely uncomfortable to be singled out for this activity. The adults that helped translate my requests into Nyungwe were usually teachers who spoke to the students in a stern voice. Students responded with one word answers or silence. While this was going on, dozens of students were assembled outside the classroom windows loudly laughing and commenting on what we were doing. I attempted to find some outsiders to act as interpreters and interviewers, but was unsuccessful. I came away with the impression that any useful interaction with students would have to take place outside of the school with extremely sensitive interviewers who could speak to the students in a non-threatening manner. Since I was unsuccessful in getting more insight into children's perception of writing, the bulk of the second research trip was spent collecting more detailed data about writing practices in the classroom.



### 3.8 Research methodology: Multimodal ethnography

This research employed a methodology known as multimodal ethnography (Dicks, Soyinka & Coffey 2006). Multimodal ethnography emphasizes the multimodal nature of not only the subject of research but also the methods used to record and present that data. In the case of this research, I observed teachers and students who were writing, speaking, reading, and gesturing. Also, I employed a diverse number of modes to record my observations including hand-written notes, photos, videos and recordings as well as collecting tangible artifacts. Each of these modes of data recording had their own affordances. Photos were useful for showing what the chalkboard looked like at any moment in time but they did not show how the chalkboard inscriptions changed over time. I tried to video complete lessons, but the physical environment was poorly lit and the resulting videos were of insufficient quality for analysis. Audio recordings likewise proved to have affordances unique to them. Audio allowed me to get a feeling only for the general atmosphere of the classroom, as the teacher's voice was frequently drowned out by environmental noise.

Dicks et al (2006:78) acknowledge that the data records that we capture during research are necessarily more restrictive than the reality they mean to capture: 'For data analysis purposes, we transform our observations of the phenomenal world into a separate set of materials that reduce it to permanent recordings ... The media available to do this – from pen to video camera – are much more restricted than those occurring in the field'. As the research progressed, I began to concentrate the majority of my data recording on photographs and fieldnotes, but I continued to use interviews as well as video and audio when they seemed to be more suitable.

During the analysis stage of the research, the photographic data records were the most useful for reconstructing the resemiotization that happened in the classroom. The photos combined with my fieldnotes provided me with ample data to analyze. Of secondary importance were the audio and video recordings I made. They occasionally helped me to reconstruct a sequence of events or retrieve a teacher's exact words when my fieldnotes were incomplete. Interviews developed in importance over the course of the analysis. In some cases they were helpful in supporting the evidence that I was seeing in photos and my fieldnotes. In terms of presenting my research multimodally, I decided to limit the thesis to

writing and images. The videos that I collected tended to be short and I did not feel that the evidence they provided was sufficient to merit their inclusion with the thesis either as detailed analyses of the videos or as included video files.

Yin (2013:106) lists six sources of evidence researchers use when doing case studies: documentation, archival records, interviews, direct observation, participant-observation and physical artifacts. My primary methods of data collection were direct observation (through observation of classroom lessons) and documentation (primarily through note-taking and photography) and physical artifacts. I additionally made use of archival records of official educational policy publications. These were made available by the administrators at the school and several were available online. Interviews were helpful in supporting my analysis of what I was seeing in the classroom and for getting background information on the teachers. I also collected physical artifacts including textbooks, students' notebooks and drawings, as well as scraps of paper that were discarded in the schoolyard.

For each of my research trips I noted my observations in large notebooks. These notes were organized by date. In addition to the chronological organization, I also numbered the lessons that I observed. These formed the basis of datasets of photos, fieldnotes and other evidence. For each dataset, I recorded the following information:

- Teacher and classroom
- Number of students and desks
- Whether I had collected a photo of the textbook page, lesson plan, chalkboard and six student notebooks for that lesson

During a total of four weeks of observation, I observed 44 lessons. These lessons were usually 45 minutes but occasionally they were double periods of 90 minutes. The observations were split between Grades 3, 4 and 5 (Table 5).

*Table 5: Number of lessons observed for each grade*

Grade 3	15 lessons
Grade 4	17 lessons
Grade 5	12 lessons

In total, eight different teachers were observed in these lessons.



Because the time was set on my camera, it was easy to match photos with the different lessons I observed. Reference recordings of audio and video could also be matched with lessons based on the date stamps of each recording. Since the fieldwork stage produced a large number of photos, I relied on computer software for organization and editing. *Picasa* ([picasa.google.com](http://picasa.google.com)) is free software and was helpful for editing photos, organizing them into albums and tagging them. I also made use of GIMP ([gimp.org](http://gimp.org)) for blurring faces and names.

Documenting the textbooks and lesson plans was straightforward since these texts entered the classroom as complete texts. I requested permission from each teacher to take a photo of pages from the textbook and their lesson plan for that lesson. In some cases, I did not get a photo of the textbook page but collected a copy of the textbook which I was able to scan and use (see 'Primary Sources').

The chalkboard was quite challenging to document. Over the course of the lesson it changed many times. My strategy was to mount a camera on a tripod in the back of the classroom and take a picture of the chalkboard after each major change to the text. For some lessons this might only require four or five photos. For other lessons more than 20 photos of the chalkboard were taken.

At the beginning of my research in the classrooms, each teacher helped me to select six students from their classroom to observe. For most classrooms, the students were those seated closest to my desk at the back of the classroom. In some cases, the teachers selected their 'best' writers for me to observe. This proved more challenging since I then had to move around a lot more in the classroom to get pictures of the students' notebooks. I tried to take at least one photo of each student's notebook at the end of the lesson. This usually gave me an idea of the content of their notebook as well as how much of the chalkboard text they were able to copy in the allotted time. I wrote numbers on the students' notebooks before photographing them and these corresponded to a list of student names I received from the teachers. In addition to photos during lessons, I took home some notebooks overnight and was also given some of the student notebooks by the teachers.

My presence in the classroom was to an extent disruptive. The teachers were courteous and forbearing in allowing me to sit in the back of their classrooms. The click of my camera frequently caused students to turn their heads to see what was going on. However, over time both teacher and students seemed to grow accustomed to my presence. In order to minimize distraction, I tried to limit my observation to no more than three lessons in a classroom per day.

I engaged in several kinds of interviews (Appendix 'List of interviews'). The assistant director, Estevão, was especially forthcoming and patient in answering my questions about what I was observing in the classroom. I also interviewed several teachers in order to learn about their background, reflections on classroom practices, and opinions on subjects like bilingual education. Interviewing students presented several problems. First, the students were intimidated by my presence and tended to answer in single word response or silence when questioned. Second, the language barrier proved to be difficult. Although I was fluent in Portuguese, they were not, and even though my knowledge of the local language, Nyungwe, allowed me to engage in casual conversation, my abilities were not sufficient to the task of discussing more in-depth topics.

I spent a lot of time between lessons sitting in the schoolyard chatting with teachers. They were friendly and enjoyed talking with me. During these times I mostly put my camera and notebook away and just socialized. They spoke in a mix of Portuguese and Nyungwe and occasionally asked me about my life. I also visited the assistant director in his office usually at the beginning and end of each day. He coordinated my visits to the various classrooms and helped answer my questions. I also had several meetings with the director of the school in his office. Everyone was friendly and forthcoming with information about their experiences at the school.

The assistant director also provided me with nine textbooks that were helpful in my research (see 'Primary Sources'). In some cases these allowed me to fill in gaps in my datasets for the lessons. They also allowed me to look through an entire book for examples of flags or student uniforms.

### 3.9 Data Analysis

In order to analyze the data, I organized the photos into datasets corresponding to each lesson. Then, beginning with the textbook text, I established the text-chain (see Chapter 5) and traced ways in which meaning moved across the various sites of display. This included a number of factors, such as the amount of detail that the teacher chose to transfer from the textbook to the chalkboard and the degree to which a sample of the students were able to copy the text in the time allotted for the lesson. Individual differences between students were noted and in some cases the writing practices of some of the students were compared over multiple lessons. The analysis of these text-chains was supplemented by my fieldnotes as well as information gleaned from interviews and some audio and video recordings. The corpus of data from the lessons serves as a qualitative case study of the various sorts of writing practices in a single school. For each example in my thesis, I have tried to support the analyses of photographic data records with additional evidence from my fieldnotes and interviews.

### 3.10 Conclusion

Direct observation and documentary evidence were the main methods of data collection, with interviews and artifact collection also supporting these methods. When dealing with young informants in an academic setting, interviews and other interventions proved to be unhelpful. Different methods would be needed in order to better understand how students perceive classroom practices and what they are writing.

Through a combination of methods, the fieldwork phase of this research resulted in a large amount of data that could be used to address my research questions. Empirical research typically relies on case studies ‘in which one uses case analyses to demonstrate theory’ (Blommaert & Jie 2010:12). In order to interpret these cases I draw on fieldnotes, documentation, interviews and more as they pertain to more than 40 observed lessons (Appendix ‘Lessons Observed’).

## 4 The chalkboard: reductive writing and expansive multimodality

This chapter argues that teachers resemiotize textbook texts onto the chalkboard in a process that is at once reductive and expansive. While the resulting text is a reduced representation of the text upon which it was based, it also serves as a focal point for an expansive range of multimodal practices that surround it. The chalkboard text is an example of an object that ‘holds steady a certain frame such that discreet interaction can take place’ (Brandt & Clinton 2002:344). It therefore has a key place in the text-chain ritual which is played out in the Mozambican classroom. I will argue that this resemiotization is characterized by mimesis (Mbembe 2004), that is, the teacher replicates the textbook in a process that is both imitative and creative (Kemp 2006; Pennycook 2007). Temporal and material constraints shape the text that is written on the board, as does the teacher’s awareness of the students’ ability to comprehend the text and complete the task at hand.

While manuals for using the chalkboard have been written (Bumstead 1841; Evans 2009), I wasn’t able to find studies documenting the use of the chalkboard in the classroom. This is possibly attributable to the materiality of chalkboard writing and its lack of durability. The chalkboard can be used and reused with nothing more than a piece of chalk and an eraser. The transitory nature of the marks on the board makes it difficult for researchers to capture how teachers actually use the chalkboard. As Wylie (2012:258) notes, even though chalkboard writing has historically been an important part of classroom practices, it is hard to know what was written on the chalkboard in the past. Wylie (2012:271) analyzes teaching manuals but admits that they do not reflect actual use: ‘Although teaching manuals reveal recommended practices, they do not necessarily indicate actual practices.’ This chapter shows actual practice by describing resemiotization as it happened on the chalkboard. In so doing, it contributes to scholarship on multimodality in education through detailed analysis of chalkboard writing in a way that has not been done before.

The chalkboard is a ‘site of display’ (Jones 2009) (see Section 2.4.1) where teachers and students collaboratively create a text based on a previous text, usually the textbook. As Jones (2009:115) states, ‘sites of display are always used to take real-time social actions in the context of particular social practices.’ Someone is displaying for someone else in ‘a

configuration of social actors in which one social unit (person or group) provides a spectacle for another social unit (person or group) to watch' (Jones 2009:114). This performance suggests that resemiotization involves 'the social unfolding of the processes and logics of representing' (Iedema 2003:50). The movement of meaning between semiotic representations is shaped by the social contexts and relations in which they occur.

The way in which a chalkboard text 'unfolds in time' (Iedema 2003:49) illustrates that one of the affordances of chalkboard writing is a 'logic of time' (Kress & Van Leeuwen 2006:226). During the course of a 45-minute lesson, the chalkboard undergoes several phases of writing that proceed according to long-standing classroom ritual. Chalkboard writing also exhibits a 'logic of space' in the way that the text is organized on the board based on a socially agreed 'design' (Kress & Van Leeuwen 2010). The logic of time for chalkboard writing is different, for example, from the logic of time for the textbook upon which it is based. The textbook is presented to the teacher as a finished text. Its means of creation is concealed in a way that the chalkboard text is not. These varying logics and affordances help distinguish between different genres within the mode of 'writing'. In this chapter, the focus is on chalkboard writing and its relation to other stages in the text-chain, especially the textbook and the notebook. The permanence of the chalkboard, the impermanence of the chalk, and the manner in which the text is created in 'real-time' (Jones 2009) all shape chalkboard writing as a distinctive type of writing.

The resemiotizing process of transferring a textbook text to the chalkboard is inherently multimodal, involving as it does a variety of semiotic resources including shape, design, and color (Kress & Van Leeuwen 2006). Additionally, writing co-occurs with the modes of speech and gesture that accompany the text's creation. Jewitt (2005:326–327) claims that all forms of reading and writing are in some sense multimodal:

What is ostensibly a monomodal written text offers the reader important visual information which is drawn into the process of reading. Reading is affected by the spatial organization and framing of writing on the page, the directionality, shape, size, and angle of a script ... In other words, both writing and reading are multimodal activities.

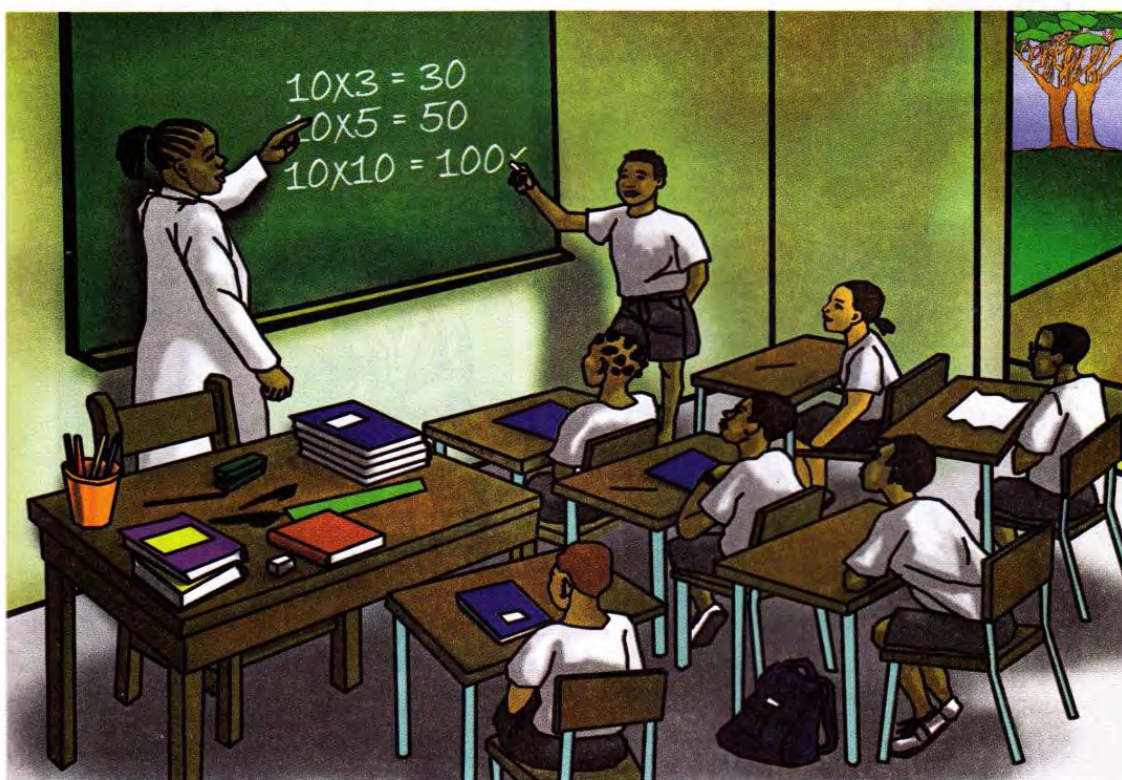
Chalkboard writing is mimetic in the sense that it is always based on an existing model (Mbembe 2004). The teacher selectively copies from the textbook depending on the

requirements of the curriculum but also her 'interest' (Kress 2010:70) in that particular moment. This mimesis involves 'a chameleon-like capacity to copy any and everything in a riot of mergers and copies posing as originals' (Taussig 1993:42). Through the use of photographic data records, this research documents instances of mimesis by comparing different stages of resemiotization. Even a direct copy of an originating text will result in change since it is created in a different context (Pennycook 2007:585). Therefore the concept of mimesis encourages us to look not at the accuracy of a copy but the degree to which certain classroom practices facilitate or discourage creativity.

The terms 'blackboard' and 'chalkboard' are often used interchangeably to refer to a large painted board upon which people can write with chalk. Although writers tend to prefer the term 'blackboard' (Bumstead 1841; Evans 2009; Wylie 2012), the term 'chalkboard' is used here for two reasons: first, it is a close translation of the accepted term in Mozambican Portuguese, *quadro de giz*, and second, it refers to the material, chalk, and the site of display, the board.

Academic writing that refers to the chalkboard is mostly divided between scholars that refer to the chalkboard as an example of old-fashioned classroom practices (Cuban 1986; Krause 2000; Wylie 2012) and those that compare it unfavorably with new technologies like the interactive whiteboard (Reed & Campbell 1972; Relan, Gillani & Khan 1997; Daniels 1999). Most multimodal studies pass over the long-standing technologies of chalkboard and notebook writing and focus instead on more modern, especially digital technologies. There are studies of interactive displays, whiteboards, smart boards, Internet chat rooms and more (Jewitt 2008). Chalkboards, notebooks, and even pens and pencils are all examples of technologies that have become 'naturalized' (Krause 2000:6) over time and have failed to receive the attention of multimodal analysts. This is despite the continued ubiquity of chalkboards in classrooms around the world. A 2008 *Education for All* report claims that chalkboards were found in more than 90% of classrooms in sub-Saharan Africa (UNESCO 2008). Yet very little is known about how these chalkboards are used. As such, this thesis addresses a gap in the literature by analyzing chalkboard writing practices in an African classroom.

#### 4.1 Chalkboard writing in the text-chain



*Figure 5: Detail from Grade 1 textbook showing prominent position of chalkboard*

The majority of lessons observed at Kwadoka Primary consisted of a text written on the chalkboard which the teacher then used as the basis of a lecture. A classroom lesson involves displaying a text on a chalkboard which the students then copy into their notebooks. During this research, more than 40 classroom lessons were observed, and they almost all used this basic format. The use of the chalkboard has long been a part of Mozambican educational methodology. One of the teachers interviewed remembers attending a school in 1977 that, despite being constructed from sticks and mud daub, still had a chalkboard and chalk (Interview Data, Joana, May 16, 2012). After observing Mozambican classroom practices in the mid-1990's, Palme (1996:196) wrote, 'Perhaps the major part of all time used for written tasks was occupied by copying the exercises as such (most often sentences) from the blackboard.' Some of these practices are realized as ritual with uncertain origins. In 1993, Marshall writes about being puzzled because of practices surrounding the classroom lesson that were not based in any of the pedagogical practices

that she was tasked with passing on to her teachers-in-training. An important part of the chalkboard text was a heading that was written at the top of the chalkboard containing the name of the school, the date, and the lesson (see Section 5.3). Remarking on the heading that her student-teachers wrote on the board at the beginning of each lesson, she wrote, 'It was never clear where this ritual originated. It was certainly not suggested in the literacy manual but seems to have been accepted classroom procedure in the official schools and hence deemed appropriate for literacy' (Marshall 1993:205). The writing of the heading which will be discussed in more detail in this chapter is one example of the kinds of educational rituals that 'deepen acceptance of the procedures used to maintain continuity' (Bernstein, Elvin & Peters 1966:429). These include the calling of attendance, correction of notebooks, and a variety of safetalk practices (see Section 4.5) that help lessons to move forward.

In this chapter, I argue that writing on the chalkboard is a central ritual in Mozambican classrooms. There may not be enough desks and textbooks for all the students. They can choose to not write in their notebooks. Teachers may or may not engage in dialogues, lectures, or kinesthetic activities, but they always write on the board. While multimodal communication is in evidence in the classroom, chalkboard writing acts as the central practice around which other modes are organized (Norris 2009:78). Chalkboard writing facilitates other practices during the lesson (Brandt & Clinton 2002:344) serving as what Scollon (2002:4) describes as the 'mediational means' for these practices.

#### 4.2 Designing the classroom lesson on the chalkboard

Chalkboard writing gives structure to everything that happens within the four walls of the classroom. This relatively invariant practice follows a structured design on the board. Below is an illustration showing the relative size, proportions and parts of a Mozambican classroom chalkboard (Figure 6).



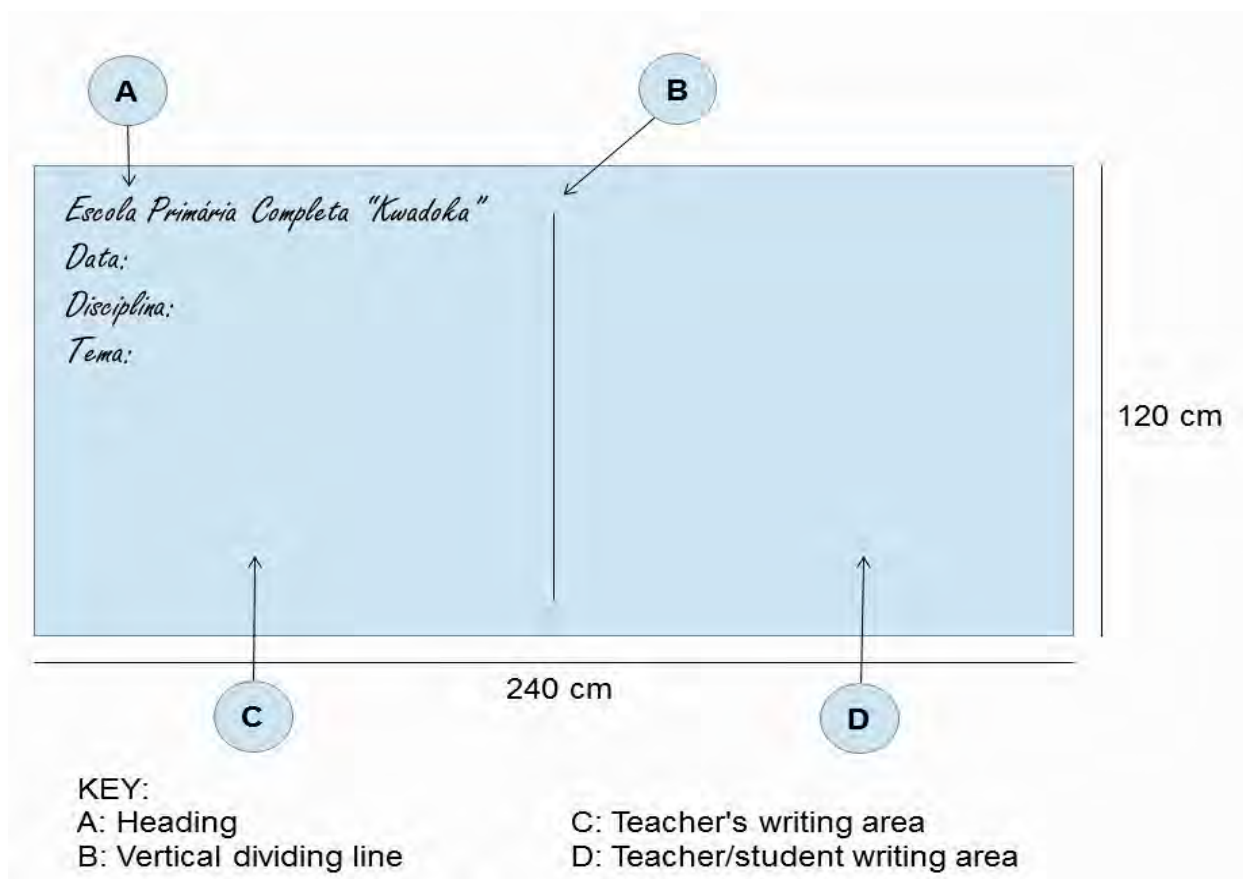


Figure 6: The design of a Mozambican chalkboard text

Kress and Van Leeuwen (2010:50) state that, in the terminology of multimodal analysis, *design* is 'the organization of what is to be articulated into a blueprint for production.' Over time, practices like writing a lesson on a chalkboard assume fairly stable designs (Kress & Van Leeuwen 2010:47). The most prominent design element on the chalkboard is the *cabeçalho*, 'heading', written in the top-left corner of the chalkboard. The heading includes the school name, the date, discipline and theme. Nothing else is ever written in the position of the heading. The heading is written at the beginning of the first lesson of the day and edited to contain the new discipline and theme at the beginning of each new lesson. Only teachers write the heading or change it.

Considering that the chalkboard is the key site of display for transmission of the classroom lesson, the heading takes up an inordinately large percentage of the chalkboard. In most cases, the heading filled approximately a quarter of the chalkboard's total area. Over the

course of the day, teachers would only need to modify two lines on the heading on the board. Students, however, had to rewrite the entire heading in their notebooks each time before they could begin copying a new lesson, and it was not uncommon to see students only succeed in completing the heading just before the end of class (Fieldnotes, March 7, 2012). As a result, this stage of the text-chain ritual left less time for the rest of the writing to be completed.

Below is an example of a chalkboard with the heading outlined (Figure 7).

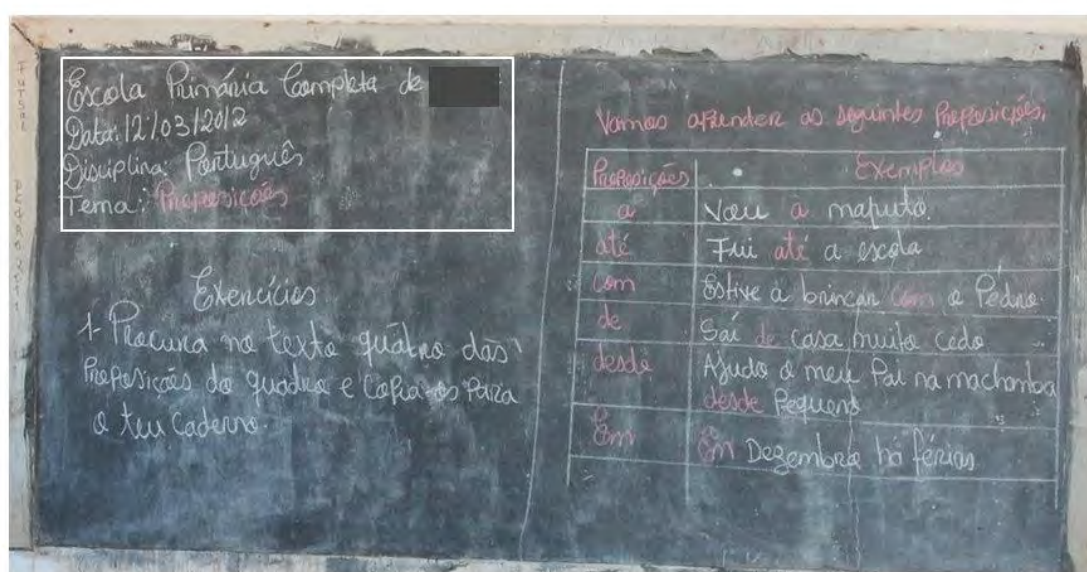


Figure 7: Relative size of the heading on the chalkboard. School name obscured.

The second element of the chalkboard design is the vertical dividing line used to separate the chalkboard into two equal areas. Like the heading, this was always present on the chalkboards that were observed. While teachers normally do not write across the dividing line, occasionally the lack of space requires them to do so (Figure 8). According to one teacher, the line serves to divide the chalkboard into two halves, with the left side being used by the teacher for the theme of the lesson and the right side for exercises (Interview Data, Paula, March 16, 2012). Resemiotization of the textbook requires not just the transferal of the text but also the design. Textbooks are organized vertically on the page but the horizontal orientation of the chalkboard requires these texts to be redesigned in a two-column format.

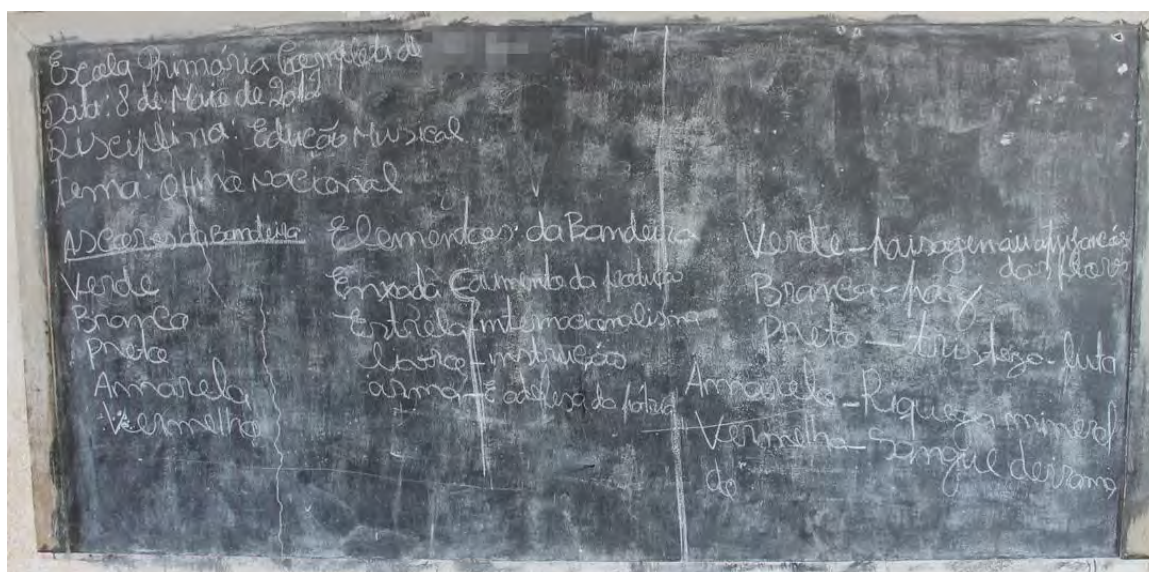


Figure 8: Teachers occasionally write across the vertical line.

The writing on the board normally begins below the heading, continuing to the bottom of the left-hand side of the board. If the text is long, teachers continue writing on the top right-hand side of the board. If there are exercises or student activities these are written on the right-hand side of the board. When homework is assigned, the teacher usually erases part or all of the left-hand side of the board (except the heading) and then writes T.P.C., an abbreviation for *Trabalho Para Casa*, 'homework', followed by the assignment for students to complete outside of class time (see for example Figure 17). The design of the chalkboard writing is constrained by the materiality of the medium but also by the writing of the text in real-time. Teachers have to leave the text up on the board long enough for the students to copy it into their notebooks. This influences the practice of erasing the text on the left-hand side of the board to write the homework. Students at this stage in a lesson should have already copied the text on the left side and begun work on the exercises on the right. Sometimes teachers pressure the students to hurry so they can erase a part of the board and begin writing something else, for example, asking: *Posso apagar?* 'Can I erase?' (Fieldnotes, March 12, 2012). In summary, chalkboard writing practices are shaped by a design that features a prominent heading, a dividing line and notations of various types beginning on the left-hand side and continuing to the right-hand side. Chalkboard writing has a performative aspect (Deumert & Lexander 2013:14) in which the writer and readers

are co-present and the writing of the next stage of the chalkboard text is dependent on the writing of the text in the students' notebooks.

### 4.3 Writing on the chalkboard

A distinctive feature of chalkboard writing is its production in real-time in the classroom. The textbook, on the other hand, comes to the teacher and students after already having been produced. Chalkboard writing happens 'live' during a classroom lesson. Starting with only a heading and using the textbook and lesson plan as guides, the teacher produces the text while the students observe. The text is displayed by the teacher for the students who should be attending to the production and interacting with it. Students often take part in the production when called to the chalkboard to complete exercises on the board.

The chalkboards at Kwadoka Primary had an approximate height of 120 cm and width of 240 cm<sup>8</sup>. The boards were made from plywood and covered in a black acrylic paint that contained a thickening agent such as lime in order to create a writing surface. The chalkboards observed had rough surfaces with numerous cracks and fading paint. They also showed evidence that they had been painted, or repainted, *in situ* with brush marks appearing on the wooden frame of the chalkboard (see for example Figure 16). The boards were mounted approximately 80 cm off the ground. This height was often too low for the teachers to write comfortably on the bottom of the board, while too high for the younger students to reach the top of the board (see for example Figure 19). The average classroom was slightly larger than eight meters wide and eight meters deep. The front desks were normally about three meters from the front of the classroom. Students sitting in the back row of the classroom were reading text that was nearly eight meters away. Letter heights ranged from 3cm for lower-case to 8cm for upper-case. At a distance of eight meters, the text on the board appeared very small, the equivalent of reading Times New Roman font with a size of 8 point or less<sup>9</sup>

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<sup>8</sup> All measurements from fieldnotes (March 12, 2012) except height from floor which was extrapolated based on photos.

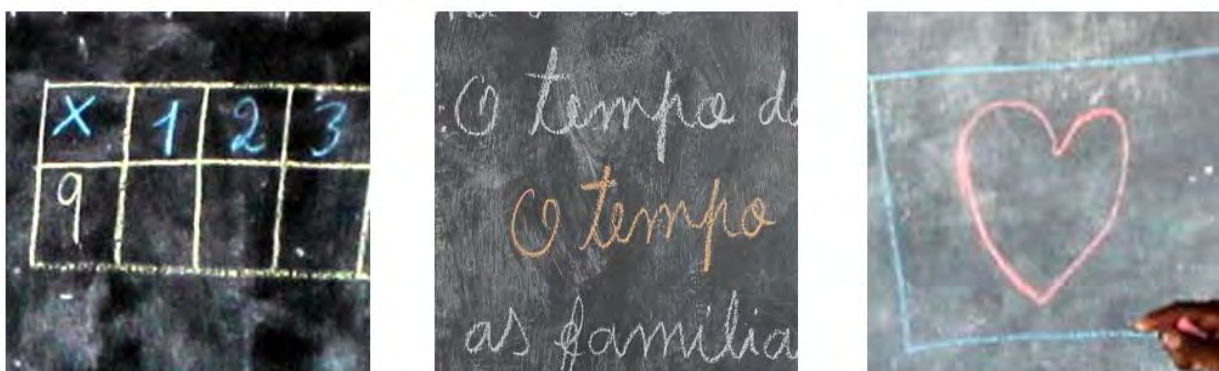
<sup>9</sup> Text size was calculated by holding a ruler at approximately 30 cm from my eyes and standing eight meters away from squares taped to a wall of approximately 8cm and 3cm. When viewed in this way, letter heights ranged from 1mm to 3mm.



Here is an example of Times New Roman at 8 point.

The materiality of the chalkboard affects the teacher's ability to make legible marks and the students' ability to interpret those marks. The surface is cracked and uneven making it difficult for the writer to make clean lines and letters. The chalkboard is also covered in marks, erasures, and chalk dust from previous lessons. The result is that there is fairly low contrast between the marks and the board. Ambient lighting also affects the visibility of writing on the chalkboard. Bright sunlight streaming in from open doors and windows often created a glare that could render parts of the board invisible. Deep shadow or low ambient light could result in a board that was almost illegible. These factors all affect students' ability to decipher what is on the board and copy it accurately into their notebooks.

The chalk used was standard chalk supplied in boxes. Most writing was done in white but the teachers also used colored chalk in various ways. Colors included blue, orange, and red (Figure 9). The colors varied in their legibility, with orange being the easiest to read and blue being the most difficult. According to Kress and Van Leeuwen (2002:349), color is a semiotic mode used for ornamentation and design, as well as the organization of a text and the creation of internal cohesion.



*Figure 9: Chalk colors include blue, orange, and red.*

The textbooks predominantly use print (also called 'manuscript' or 'block') writing styles, but chalkboard writing is always done using cursive (also known as 'joined writing'). Mozambican students are exposed to both writing systems from early in Grade 1. In the sample below from the Grade 1 reading workbook (Figure 10), students must master one

system for reading and another for writing. At the top of the page, the sentence *O Ulisses corta as unhas*, 'Ulisses cuts his fingernails' is written in both writing styles. While the two systems do have superficial similarities they also have significant differences. For example, the print and cursive letter shapes for a, r and s are quite different. This is not a debate of the relative merits of different writing systems but does demonstrate an additional layer of complexity that exists in these writing practices. Students must learn to read and write in Portuguese which is normally a second or foreign language to them, and they must do so while managing two different writing styles.

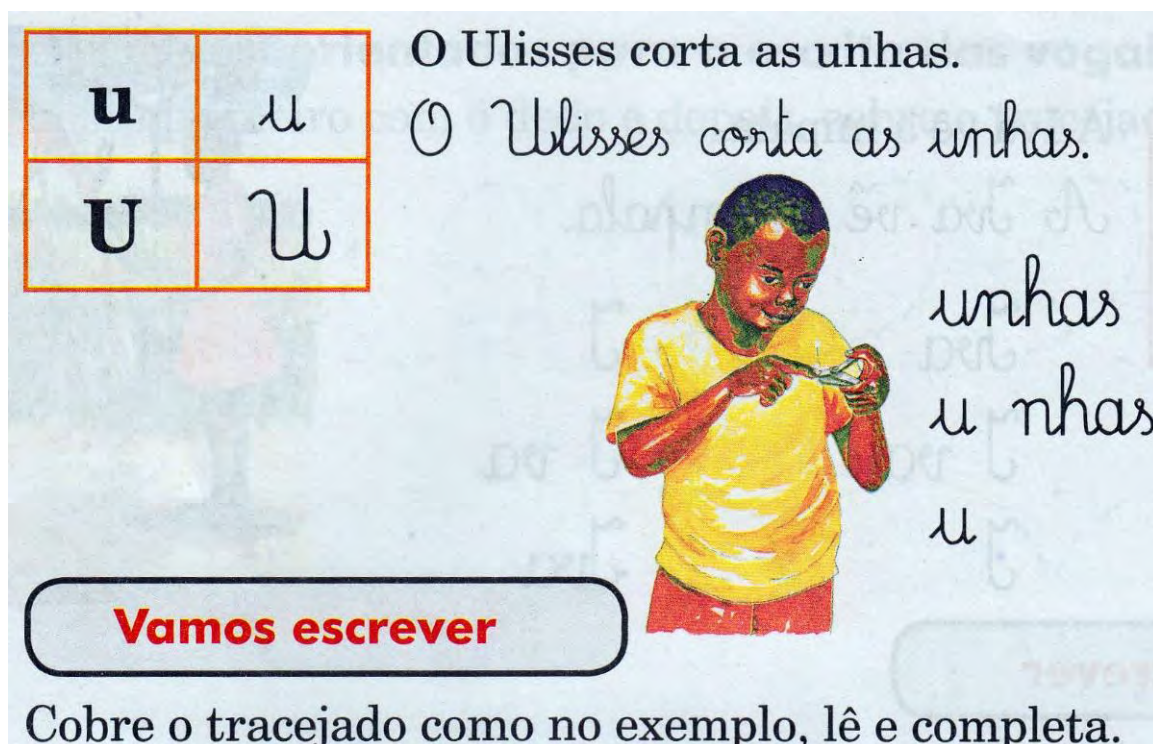


Figure 10: Grade 1 textbook excerpt showing print and cursive writing styles

Individual writers display their own cursive 'style', and depending on whether they are writing carefully or not, a single writer can write letter forms in very different ways. For example, the letters 'Pr' are rendered in a variety of styles in these samples of teachers' writing on the chalkboard (Figure 11).

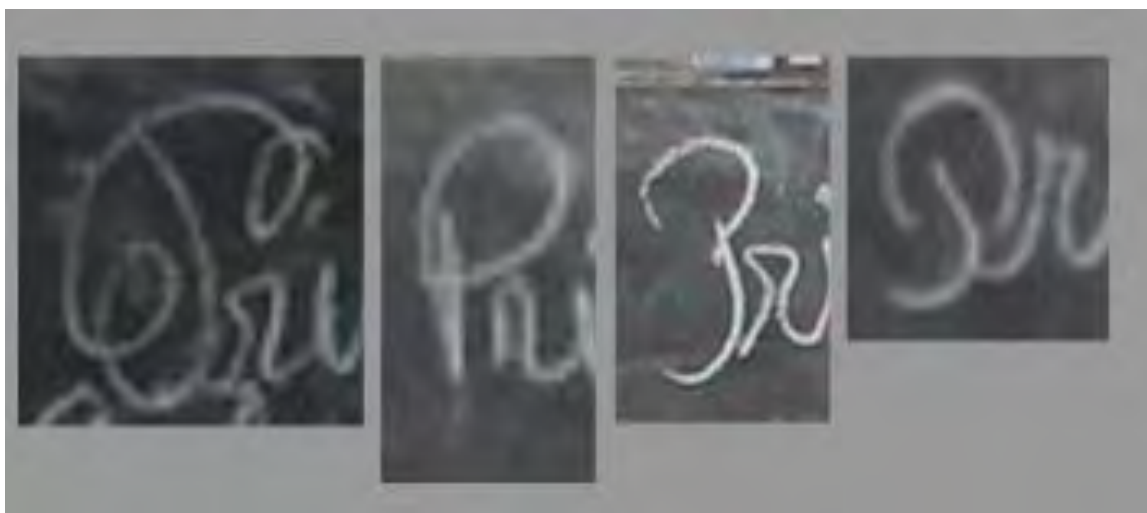


Figure 11: Examples of teachers writing 'Pr' in cursive

The vicissitudes of the writing surface and medium, together with the teacher's level of care when writing words, can create many opportunities for words to be misread. In this detail from a lesson on *O Lixo e O Ar*, 'Rubbish and the Atmosphere' (Lesson 10), students had trouble interpreting the word *não*, 'no' (Figure 12). One student, Isable, wrote the word as *ma~a*. Another student, Nomela, wrote the word as *moõ*. Neither word is intelligible in Portuguese. The shape of the cursive 'n' is easily confused with that of the letter 'm' since the serif on the bar can be interpreted as the first curve of the 'm'. The 'a' and 'o' can also be easily confused depending on whether the reader sees the final stroke as the bar of an 'a' or the tail of an 'o'. Another student, Apri, does not produce any decipherable characters and instead writes in a pseudo-Portuguese. The writing of these students will be examined in more detail in Chapter 5.

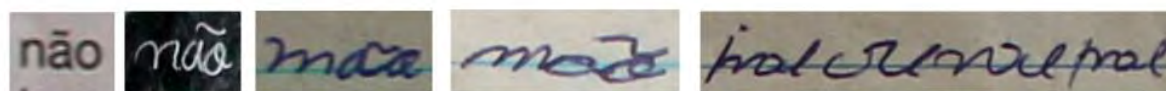


Figure 12: Left to right: textbook, chalkboard and three student notebook examples of the word 'não'

In my observations it became clear that the students have trouble engaging in rote copying activities and this, I would argue, is partly attributable to the materiality of chalkboard writing: the teacher's penmanship, the writing surface and medium, lighting conditions, and

the distance of the student from the chalkboard. The students' unfamiliarity with Portuguese also makes it difficult for them to deal with ambiguity, even for a common word like 'não'. At the end of this particular class, the teacher, Paula, came up to me and apologized for her bad handwriting: *Eu não tenho boa caligrafia*, 'I don't have good handwriting' (Fieldnotes, March 9, 2012). However, even teachers with good handwriting produce texts that are difficult for their students to decipher due to the materiality of chalkboard writing, the physical environment, and the students' unfamiliarity with Portuguese.

#### 4.4 Resemiotization beyond the chalkboard

While the chalkboard text generally serves as the basis for rote copying by the students, it can also serve as the point of departure for other modes of communication that engage the students more actively. The next examples come from a Grade 4 Natural Sciences lesson about hunting (Lesson 14) in which the teacher engages in writing, lecturing, and discussion. The teacher and students move seamlessly between languages, using Portuguese and Nyungwe sometimes in the same sentence. This lesson shows that classroom practices often feature writing characterized by reduced resemitizations but also serve as the basis for an expansive multimodal ensemble of activities. The reduced nature of these texts is characteristic of the 'criterial' nature of semiosis (Kress 2010:70). A sign-maker must decide at the time which parts of the originating sign should be reproduced.

Classroom lessons are structured using the *plano de lição*, 'lesson plan' (Figure 15). Before teachers can enter the classroom, they are supposed to have their lesson plans for that day approved by the assistant director in his office (Interview Data, Estevão, March 16, 2012). Teachers hand-write these lesson plans in large notebooks, indicating the date, discipline and class. The lesson plan also lists the actual texts that will be discussed and written on the board. It outlines each step of the classroom lesson, how much time is allocated for each section, and what the teacher and students will be doing.

This Natural Sciences lesson is scheduled to last from 8:55AM-9:40AM but only begins at 9:06AM, when the teacher, Fátima, enters the classroom and adds the discipline and theme to the heading that is already on the chalkboard. Fátima has been teaching since 2008. She grew up in Tete and is currently studying at the teachers college in Kanangola. According to



her lesson plan, the first part of the lesson is a summary in which she will explain the lesson and the students will listen. During natural science and social science lessons, teachers commonly use this time to orient students to potentially unfamiliar vocabulary by leading a brief discussion in a mixture of Nyungwe and Portuguese.

At 9:11AM Fátima begins explaining the theme:

*O tema de hoje é caça* ['ka:sə] *não casa* ['ka:zə], 'Today's theme is hunting not house.'

Since the two words only differ by a single sound, she explains that *caça*, 'hunting,' is not the same as *casa*, 'house'. Then she switches to a mixture of Portuguese and Nyungwe in order to orient the students further to the theme of the lesson:

Portuguese words in italics. Nyungwe is underlined. Translations in quotes.

Fátima: *Caça* ni ciani? 'What is hunting?'

Students: Kusodza nyama, 'Hunting for game'

Fátima: *Quais são os instrumentos de caça?* 'What are the instruments used for hunting?'

Students: Mbwaya ... catana ... mbadzo ... cisu ... dipa ..., 'Dog ... machete ... axe ... knife ... spear ...'

(Fieldnotes, March 12, 2012)

What follows is an animated dialogue between Fátima and the students in Nyungwe and Portuguese on types of hunting tools, the animals hunted and the uses of their flesh, skins and horns. While this discussion is taking place, the teacher is pacing back and forth in front of the students with her hands in her pockets and her eyes directed toward the students. The students look at Fátima and eagerly shout out responses in Nyungwe to her questions (Figure 13).



Figure 13: Teacher and students discuss the theme in a mixture of Portuguese and Nyungwe.

The ‘introduction and motivation’ section, when teachers preface a Portuguese lesson with this type of bilingual discussion, is what they refer to as *currículo local*, ‘local curriculum’ (see Section 2.1.2). According to the *Plano Curricular Do Ensino Básico*, ‘Curriculum Plan for Basic Education’, *currículo local* can compose up to 20% of classroom time. While its purpose is to bring local knowledge and technologies into the classroom, a side effect has been to give teachers the freedom to depart from the Portuguese-centric and textbook-centric curriculum and engage in practices that are more sensitive to students and their existing language and knowledge. As Estevão, the assistant director of the school where this research took place, said in an interview:

[*Currículo local*] doesn’t have a certain time: now, we’re going to talk about *currículo local*. *Currículo local* takes place throughout the lesson depending on the teacher (Interview Extract, Estevão, March 16, 2012).<sup>10</sup>

One of the teachers said that she uses *currículo local* when kids are not understanding the lesson in Portuguese: ‘It’s something that appears during the teaching, for example, a child

<sup>10</sup> Portuguese transcription: *Não tem um tempo específico que agora só vamos falar do currículo local. CL está partindo em toda a aula dependendo do professor.*

doesn't understand, we'll introduce it there' (Interview Extract, Paula, March 16, 2012).<sup>11</sup>

Teachers at the school where this research took place understood *currículo local* to be the inclusion of local culture or language during a lesson. The assistant director affirmed this, saying that in a monolingual school like Kwadoka Primary, using the local language is the same as *currículo local*:

[T]he language itself, at this time when we are teaching monolingually, the language itself is also local curriculum (Interview Extract, Estevão, March 16, 2012).<sup>12</sup>

He also stated that *currículo local* is an important means of contextualizing lessons by referring to local industries, for example, rather than to those listed in the textbook which might not exist in Tete:

The fact that we use the local language, you see, in a classroom that has been monolingual, that has begun using *currículo local*, is not enough. If the mathematics book has exercises that have problems to solve: Mr. Fulano, for example, works in a factory. If, seeing as Mr. Fulano is at Mozal (an aluminum factory in Maputo), here it is just a matter of changing. Instead of speaking of Mozal, speak of what is closer to the student, the Mozambique Leaf Tobacco factory. Also, you could speak of the coal mines in Moatize. You just substitute a problem that is distant from the student for a name that is close to the student. Now you are changing to *currículo local* (Interview Extract, Estevão, March 16, 2012).<sup>13</sup>

In Estevão's description, *currículo local* is perceived as an *ad hoc* strategy that teachers can implement as needed. This contrasts with more formal descriptions in official documents which describe *currículo local* as being more about incorporating local topics into the curriculum. These policy documents often carry expectations of multiple steps, including

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<sup>11</sup> Portuguese transcription: *É uma coisa que aparece durante o ensino, por exemplo, que a criança não entende, nós introduzimos aí.*

<sup>12</sup> Portuguese transcription: *[A] própria língua neste momento que estamos a dar no ensino monolíngue, a própria língua também é o currículo local.*

<sup>13</sup> Portuguese transcription: *O facto só de recorrer á língua local, não é?, numa aula que tem sido monolíngue que entrou no currículo local mas isto não basta. Se no livro de matemática tem exercícios tem problemas a resolver: O Senhor Fulano é, por exemplo, trabalha na fábrica se vendo que o Senhor Fulano está no Mozal, o livro aparece assim mas não temos Mozal aqui e só mudar em vez de falar Mozal falar do o que está próximo do aluno, fábrica de Mozambique Leaf Tobacco. Também, pode falar das minas de carvão de Moatize. Só pode substituir num problema um que está distante do aluno para um nome que está próximo do aluno já está mudar para o currículo local.*

working with the community to collect and organize information, and production and distribution of materials on a *currículo local* topic (see INDE, 2006). For example, a provincial education official stated in an interview that *currículo local* begins with a teacher going into the community and discussing a topic with people and then elaborating a lesson based on this topic (Interview Data, Director BE, May 15, 2012). This is similar to findings in a study undertaken in 2010 which found that Mozambican school directors saw *currículo local* as a program and materials to be developed rather than an in-class strategy to be used by teachers (de Forsberg & Månsson 2013). Chimbutane (2009:237–238) likewise discovered that while teachers and community members were familiar with the idea of *currículo local* that there was less certainty of how it ought to be implemented.

In the case of Kwadoka Primary, the uncertain definition of *currículo local* has resulted in a situation in which teachers have been able to bring local language and culture into the classroom without fear of reprisal. This is important in a school designated as ‘monolingual’ where teachers could be evaluated negatively for using the local language too much in the classroom (see Section 2.4.2). I noticed this in the early days of my observation when teachers seemed to be trying to use only Portuguese when I was in the classroom.

In this lesson, Fátima scaffolds (Sharpe 2006) the lesson by using the local language, explaining unfamiliar vocabulary like ‘hunting’, and describing the topic in terms of known culture. The students speak out eagerly, since she has given them permission to speak Nyungwe. They mention items in the discussion that are not found in the book, such as an ‘axe’ and a ‘spear’. Later in their discussion, they help her when she forgets the Nyungwe word for horn, ‘nyanga’ (Fieldnotes, March 12, 2012). The resemiotization seen here departs from the usual rote copying of the text. At this stage only a single word *caça*, ‘hunting’ is written on the board. This illustrates how in some cases the texts created during a lesson are a reduced representation of the rich semiosis at work in a classroom, especially in instances in which the students have their full linguistic repertoire at their disposal.

With only 15 minutes left in the class, Fátima begins writing the lesson text on the chalkboard. The chalkboard text comes from both the textbook and the lesson plan. The use of color follows her lesson plan (see details 2, 3 and 4 in Figure 15 and Figure 16). She also

refers to the textbook since detail 5 is not found in the lesson plan but is part of the textbook. Detail 5 contains the text: *Com a pele fabricam-se instrumentos de percussão*, 'Percussion instruments are made with the skin' (Figure 14 and Figure 16). The motivation for this inclusion seems to be a topic that arose in the discussion:

Portuguese words in italics. Nyungwe is underlined. Translations in quotes.

Fátima: *Pele é o que?* 'What is skin?'

Students: Nkhanda! 'Skin!'

Fátima: *Para ng'oma*, 'For drums'

(Fieldnotes, March 12, 2012)

After the opening section of introduction and motivation, Fátima copies the Portuguese text from her lesson plan onto the board and then addresses the students in Portuguese and begins to read the text she has written on the board. The students are now expected to copy this text into their notebooks. She proceeds to write the text on the board starting on the left and continuing on the right-hand side.

## 2 Caça



## Observo



Fig. 18



Fig. 19



Fig. 20



Fig. 21



## Interpreto

1. Diz o que observas nas figuras 18, 19, 20 e 21.
2. Identifica as actividades que observas nas imagens.
3. Escreve uma história a partir das imagens.
4. Qual das imagens mostra que o pai da Khatija caçou um animal?
5. Diz duas utilidades dos animais caçados, a partir das imagens.



## Concluo

3

A caça é uma actividade humana muito antiga que serviu e ainda serve para garantir a alimentação do homem. Consiste na procura de animais selvagens.

4

Na aldeia da Khatija, a caça é uma actividade masculina, pois é necessária uma grande força e resistência para a fazer, assim como uma aprendizagem prévia. Os caçadores utilizam redes, catanas, facas, arcos, flechas e azagaia.

A carne é consumida ou vendida. Aquela que sobra é estendida ao sol para se conservar.

5

Com a pele fabricam-se instrumentos de percussão. O chifre, por exemplo, é usado como instrumento musical de evocação nas cerimónias, festas, ciclos de produção e funerais.

Há animais que não podem ser caçados, pois têm de ser protegidos para que não se extingam ou desapareçam: são as chamadas espécies protegidas. Existem locais próprios para caçar – reservas de caça – e outros locais para proteger e defender os animais dos caçadores, garantindo-lhes um espaço e ambiente natural – reservas ou parques naturais de vida selvagem.

Figure 14: Parts of the textbook written on the chalkboard



1		ER		Data: 12/03/2012		Disciplina: C. Sociais		Tema: Caça		Classe: 4.º		Turma: A		Duração: 45	
Objectivo: Identificar os instrumentos da caça															
T		FDD		Conteúdo		Actividades		Aluno		mat		mab			
5'		Intro e m		Resumo		Faz resumo da aula		escutam		E/C		oral			
		2		Caça		Pensa		Pensam							
		3		A caça é uma actividade de humores muito antiga que surgiu e ainda surge para garantir a alimentação do homem. Consiste na procura de animais selvagens.		o tema no seu dia		o tema no caderno		E/C					
35'		4		A caça é uma actividade de masculina, pois é necessário uma grande força e resistência para fazer, como uma aprendizagem.		Procede com a sua explicação		Procedem com a sua explicação						uno de aluno	
		5		Os caçadores utilizam redes, catanos, laços, arcos, flechas e azagaias. A carne é consumida ou vendida.		exclamam de todos os lados		expõem as suas dúvidas						apagador, giz, quadro, apagador,	
5'		6		I.P.C		Dá o TPC		Tram. creche		T/E				uma	

Figure 15: Parts of the lesson plan written on the chalkboard



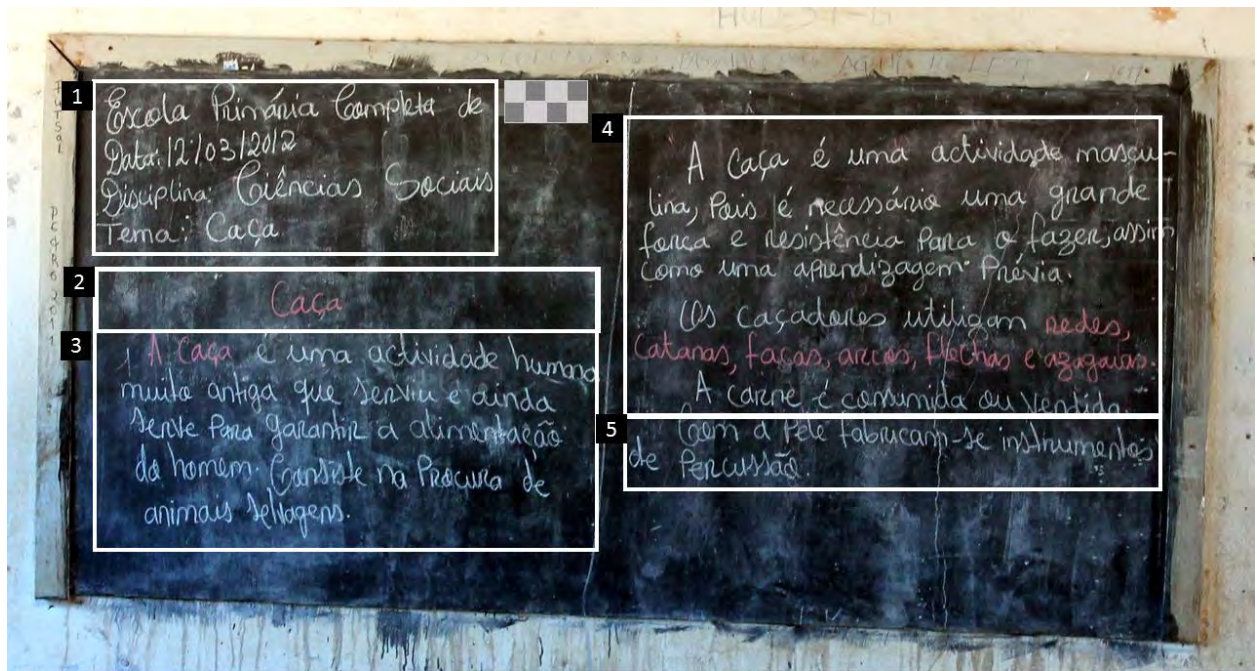


Figure 16: Parts of the chalkboard text from the textbook and lesson plan

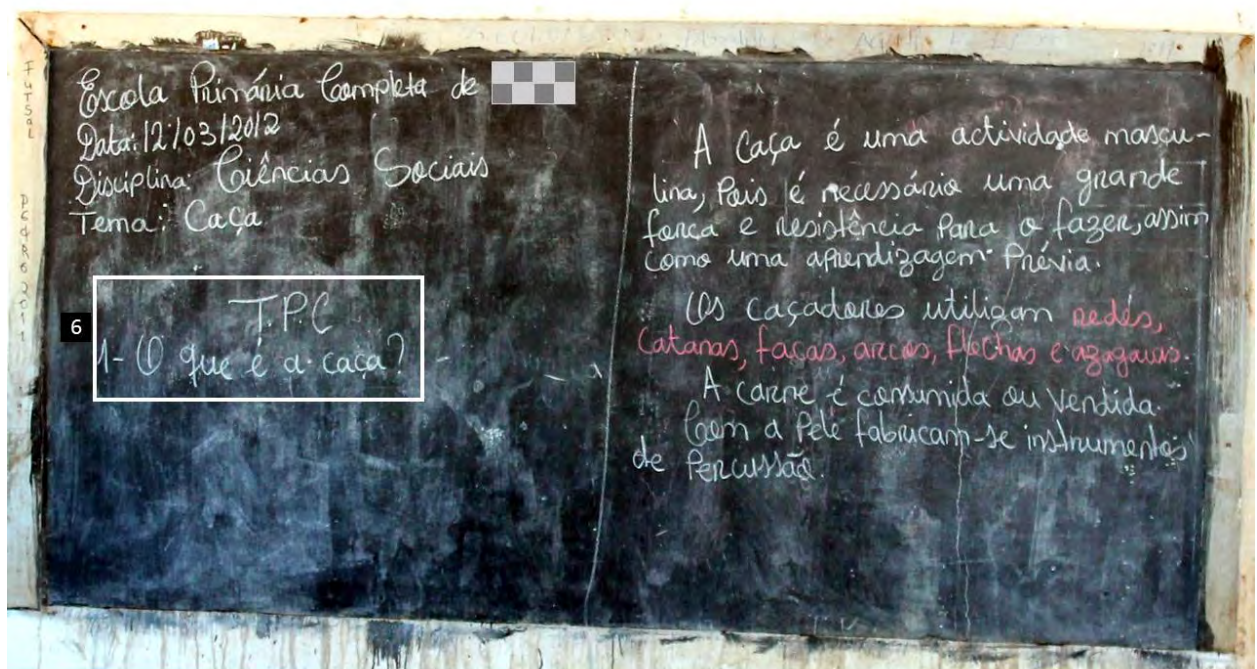


Figure 17: Final version of chalkboard after erasing left side and writing homework



For this lesson, Fátima selectively draws from the textbook based on her knowledge of her students. The teacher has been provided with the set text, and the curriculum shapes what she is teaching in this particular lesson. However, she has considerable leeway in choosing the components of the lesson. The text she selects is only a small portion of the textbook lesson that spans more than a page (Figure 14). The affordances of chalkboard writing are such that rather than reproducing or discussing one of the four illustrations on the page, or engaging in dialogue based on the list of discussion questions, she chooses to copy a small portion of the text onto the board as the basis of her lesson. The chalkboard text is crucial to the writing ritual, since not all students have a book from which to copy. Of the six students observed in this lesson, only three had books (Fieldnotes, March 12, 2012).

Fátima also makes a change to the textbook text. In the textbook, the section on hunting is part of a unit on the family. The text follows the activities of a young girl named Khatija and her family. Since the text copied onto the board lacks the wider context of this narrative about Khatija, Fátima leaves out a reference to her: *Na aldeia da Khatija*, 'In Khatija's village' from the text she writes on the board (Compare Detail 4 in Figure 14 and Figure 16). This example shows the teacher designing her text for a particular classroom context while working within a pre-given design, drawing on a combination of the textbook resources and her students' knowledge in their own language. For the students, the chalkboard guides them in knowing what information is essential and should be copied into their notebooks.

The writing of the lesson text on the chalkboard gives an insight into the mimetic nature of resemiotization. Rather than being mechanically copied from the textbook, the chalkboard text is constructed from various sources which serve as the basis for the construction of other texts such as the classroom discussion. There is a dynamic social interaction at work between the teacher and the students which influences what is written on the board. The final chalkboard text, although superficially identical to the textbook text, is the result of this 'relation between the various levels of representation' (de Souza 2003:37). The text that eventually appears on the board is only a small sample of the full textbook text upon which it is based, and in that sense it can be interpreted as a reduced sign. However, the full multimodal ensemble (including writing, reading, questions, answers, and gestures) results

in a semiotically rich classroom ritual that is not apparent by a simple comparison of the textbook text with the chalkboard text (see also Stein 2008; Newfield 2009).

At the end of the lesson, Fátima needs to write the homework assignment, but the board is already covered in other text. At 9:43AM Fátima begins asking the students if they have finished copying the board: *Acabaram?* 'Have you finished?' (Fieldnotes, March 12, 2012). Then she erases the text on the left-hand side of the board and writes the homework (Detail 6 in Figure 15 and Figure 17). The class ends with many of the students still writing in their notebooks. This shows that the teacher's attempts to explain the content and engage the students using other multimodal means comes at a cost, since the students have less time to fulfill the text-chain ritual (see Chapter 7).

To summarize several of the observations from the hunting lesson example, chalkboard writing is an instance of resemiotization. The teacher takes a text and represents it on the chalkboard. This representation is reductive in that the textbook text is only partially represented on the board. However, this representation is also expansive in that a single text serves as the basis for a variety of multimodal communication. Chalkboard writing is multimodal in that it involves writing, design, shape and color (Blommaert 2008:113). Although chalkboard writing exists within a wider multimodal ensemble of speech and gesture, it holds a privileged position in the classroom text-chain ritual as the key site of display around which other signs circulate, holding 'steady a certain frame such that discrete interaction can take place' (Brandt & Clinton 2002:344).

#### 4.5 Chalkboard writing as ritual

The previous example showed some of the aspects of resemiotization during the text-chain. In general terms, Fátima copied the textbook text onto the chalkboard. A closer inspection of the process of creating the text showed that although it was based on the textbook, the text was shaped by the Fátima's lesson plans, the interaction between the teacher and students, and the students' own input. Also, the text was one of several signs, including a lecture, discussion, and gestures that together formed a multimodal ensemble which extended beyond the chalkboard. This was not haphazard communication. Instead, the sorts of things that could be said or written and their particular instantiations were governed by the text-chain ritual.

Another example of chalkboard writing shows how the forms and language of a ritual give it legitimacy beyond the situational meanings. In a Grade 4 classroom, the teacher, Yolanda, delivers a lesson on adding grams and kilograms (Lesson 36). Yolanda was raised in Tete and has taught at Kwadoka Primary since 2005 (Interview Data, Yolanda, May 14, 2012). She informs me that since time is short she is giving the students a review exercise based on a previous lesson (Fieldnotes, May 10, 2012). For this lesson, Yolanda writes a text on the board, quickly explains the problem, and then puts the kids to work copying the text into their notebooks. The text in question revolves around a story problem about adding grams and kilograms:

English translation:

Miss Julia bought in the store 3 kilograms of sugar and 250 grams of tea.  
What is the total weight of the purchased products?

It is the same as asking: how much is the sum of 250 grams + 3 kilograms  
and 500 grams?

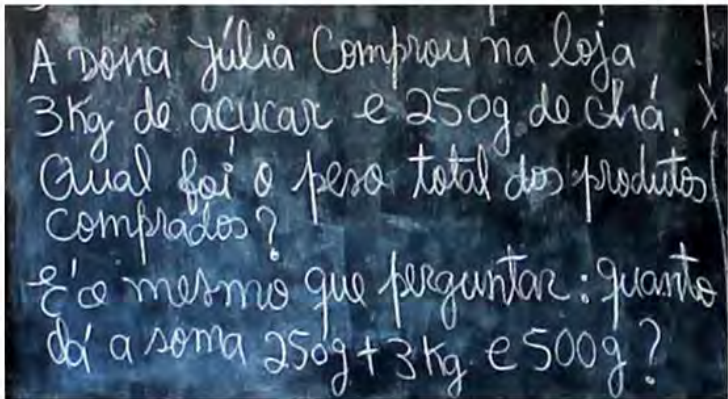
(Grade 4 Mathematics, page 36)<sup>14</sup>

The story problem in the book contains an error, the omission of 500 grams from the original question which is present in the rest of the lesson as well as an accompanying

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<sup>14</sup> Portuguese text: *A Dona Júlia comprou na loja 3 kg de açúcar e 250 g de chá. Qual é o peso total dos produtos comprados? É o mesmo que perguntar: quanto dá a soma 250 g + 3 kg e 500 g?*

mathematical illustration (see bottom of Figure 18). Yolanda, however, copies the text directly into her lesson plan and onto the chalkboard with the error (see top of Figure 18). Then she begins urging the students to copy the text, saying, *Vamos copiar!* 'Let's copy!' Twenty minutes after she begins writing the text on the board, Yolanda adds the homework to the bottom of the chalkboard, and a few minutes later the bell rings and the lesson is over.



A Dona Júlia comprou na loja 3kg de açúcar e 250g de chá. Qual foi o peso total dos produtos comprados? É o mesmo que perguntar: quanto dá a soma 250g + 3kg e 500g?

A Dona Júlia comprou na loja 3 kg de açúcar e 250 g de chá. Qual é o peso total dos produtos comprados?

É o mesmo que perguntar: quanto dá a soma 250 g + 3 kg e 500 g?

Podes calcular assim :

$$\begin{array}{r} 250 \text{ g} \\ + 3 \text{ kg } 500 \text{ g} \\ \hline 3 \text{ kg } 750 \text{ g} \end{array}$$

R: O peso total é 3 kg e 750 g.

Figure 18: Details from chalkboard and textbook show 500 grams missing from a story problem.

In contrast with the hunting lesson (Lesson 14), this lesson contains the bare minimum of interaction between the teacher and students. For the hunting lesson, Fátima and her students could be said to be co-authors, engaging in lively discussion and co-creating the content, However, for this lesson, Yolanda and the students are acting more as animators

(Goffman 1981), repeating a text verbatim authored by someone else without changing it. Even when the text contains an error, it is still copied onto the chalkboard and later into student notebooks. This contrast shows that classroom ritual varies considerably in the degree to which the teacher and students are involved in authoring the chalkboard text. It also demonstrates that a text with problematic content need not necessarily prevent the ritual from successfully being completed. Finally, this example again shows how important chalkboard writing is in the classroom. The text that Yolanda wrote on the board and the students' notebook writings were sufficient evidence that a legitimate classroom ritual had taken place.

The previous example showed that chalkboard writing was capable of being executed by the teacher alone. In other lessons, it was common for the teacher to enlist students in various ways to participate in writing on the board. In the next example, the teacher is Paula. She also comes from Tete and began teaching in 2007. She was transferred to Kwadoka Primary in 2009 and has taught this class since then (when the students were in Grade 1; interview Data, Paula, March 16, 2012). For this lesson on multiplication (Lesson 9), Paula leads her Grade 4 students in a series of exercises and at various points during the lesson asks volunteers to come to the board to solve problems. This type of lesson is distinguished from the type in which the teacher writes a text for the students to copy. Although the previous lesson about adding grams and kilograms was nominally an exercise, Yolanda provided the answer to the problem before the students had even completed copying the problem on the board. For this multiplication lesson, Paula spends considerable time explaining the concept of multiplication. The mathematical technique taught in the book shows a way to multiply multiples of 10, 100 and 1000 by multiplying the numbers and adding the number of zeros. For example, following the textbook, Paula writes this sentence on the board: *Para calcular  $5 \times 70$ , basta multiplicar 5 por 7 e acrescentar um zero*, 'To calculate  $5 \times 70$ , you only need to multiply 5 by 7 and add a zero' (Grade 4 Mathematics, page 49). While Yolanda in the previous example copied directly from the book onto the board, Paula copies from her lesson plan. In the process, however, she simplifies the problems. The textbook and her lesson plan contain the following examples:

To calculate  $5 \times 70$ , you only need to multiply 5 by 7 and add a zero.

To calculate  $9 \times 8000$ , you only need to multiply 9 by 8 and add three zeros.

To calculate  $6 \times 70\,000$ , you only need to multiply 6 by 7 and add four zeros.<sup>15</sup>

However, Paula simplifies two of these problems when she writes them on the board:

English translation, changes underlined:

To calculate  $9 \times \underline{800}$ , you only need to multiply 9 by 8 and add two zeros.

To calculate  $6 \times \underline{7000}$ , you only need to multiply 6 by 7 and add three zeros.

Teachers vary in the degree to which they adapt the textbook and lesson plan when writing on the chalkboard. This demonstrates an important aspect of classroom ritual. The rituals enacted in the classroom serve as structured frames for the activities that take place, but those participating in them still have considerable flexibility. Ritual is not something that happens to participants but rather is something in which they are actively involved (McLaren 1999:40). It is left up to the teacher to determine how a particular ritual is enacted and even transgressed, or, as Bourdieu (1991:125) notes, the person who is sure of their position is able to 'play with the rules' of the ritual. In the case of the grams and kilograms example (Lesson 36), the teacher copied the text directly, even to the point of transferring a textbook error onto the board. In this example (Lesson 9), the teacher interacts more directly with the text. She evaluates the content and adapts it in the process of copying from her lesson plan onto the chalkboard.

After explaining the concept and writing the text on the board, Paula begins writing exercises on the board for the students to solve. Unlike the previous example, Paula requires the students to calculate the answers rather than writing them herself. She asks for a volunteer to come to the board saying: *Um voluntário?* 'A volunteer?' A boy comes up to solve the problem  $7 \times 30$ . However, Paula has written the problem at the top of the board and the boy cannot reach it. She erases it and rewrites it at a level that he can reach (Figure

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<sup>15</sup> Portuguese text:

*Para calcular  $5 \times 70$ , basta multiplicar 5 por 7 e acrescentar um zero.*

*Para calcular  $9 \times 8000$ , basta multiplicar 9 por 8 e acrescentar os três zeros.*

*Para calcular  $6 \times 70\,000$ , basta multiplicar 6 por 7 e acrescentar os quatro zeros.*

19). He writes the correct answer, 210, and then looks to Paula for confirmation. He is rewarded by Paula leading the students in singing a clapping song: *Muito bem ... muito bem ... muito bem!* 'Very good ... very good ... very good!' (Fieldnotes, March 7, 2012). The next volunteer struggles to answer his problem ( $9 \times 300$ ). He stands for a while by the board until Paula calls out: *Outro menino para ajudar?* 'Another child to help?' A girl comes up to solve the problem (Figure 20). While she does so, she points out the numbers to the boy while she reads them, and writes the correct answer. Then the boy and girl return to their seats accompanied by another verse of the clapping song.



Figure 19: Problem on the board too high for student to answer. Teacher then rewrites it lower.



This example shows how, at times, the chalkboard text is collaboratively authored by the teacher and students. Unlike the hunting lesson where a set text is written on the board by the teacher and the students then copy it, this exercise lesson requires participation by the entire class. The teacher writes on the board. Students also write on the board. When a student is stuck there exists a way to overcome the obstacle and complete the exercise.



Figure 20: Girl helps boy to solve math problem on board (Lesson 9).

Scholars writing about second-language education use the term ‘safetalk’ to refer to a variety of strategies that allow classroom rituals to continue despite the language barrier. Chimbutane (2009:55) calls these ‘interactional strategies that allow [teachers and students] to preserve their dignity by avoiding opportunities for displays of academic or linguistic incompetence.’ These strategies include things like group chorusing in which answers to teacher questions are shouted out in unison, with answers initially provided by the most capable pupils or those prompted by the teacher herself (Chimbutane 2009:171). This type of safetalk appeared in the beginning of this lesson:

Paula: *5 x 7 ou 7 x 5 faz quanto?* ‘5 x 7 or 7 x 5 makes how much?’

One quiet voice: 35.

Paula: *Faz quanto, meninos?* ‘How much, children?’

All in loud voice: 35!



Paula: *Depois acrescenta um zero, 350. 'Then add a zero, 350.'*

(Fieldnotes, March 7, 2012)

The collaborative writing seen in the previous two examples could be considered to be a form of safe-writing, that is, the written equivalent of safetalk. In the grams and kilograms lesson (Lesson 36), Yolanda writes a question on the board and then provides the answer herself. In the multiplication lesson, the teacher provides the exercises and then relies on a few capable students to provide the answers for the rest of the students to copy into their notebooks. The boy who wrote 210 on the board (Figure 19) is engaging in the safe-writing equivalent of the quiet voice that answered 35 to the teacher's verbal question earlier in the lesson.

To conclude this section, chalkboard writing varies in the degree to which teachers and students write on the board. The writers can act in a more passive role as animators in which they engage in rote copying. Teachers can also take a more authorial role, selecting from the source text and modifying it based on the needs of the lesson and the abilities of the students. Students also play a part in writing on the board collaboratively with the teacher and other students.

#### 4.6 Conclusion

This chapter has examined one link in the text-chain, chalkboard writing. The examples shown have illustrated resemiotization in action. Resemiotization is not simply the transferal of the textbook text to the chalkboard. Instead, the teacher selectively chooses a small part of the text to share with her students. The teacher's choice of text is shaped by factors like the materiality of the chalkboard, knowledge of the students' abilities, and the time available for the lesson. A key feature of resemiotization is that it is mimetic. Mimesis is related to the terms copying and imitation (see Section 2.4.3). However, the use of the term mimesis invokes a cluster of interrelated concepts that provide explanatory power for this analysis. First, mimesis implies that it is never possible to make an exact copy (Pennycook 2007). Instead, the sign-maker imitates creatively (Kemp 2006), choosing whichever aspect or characteristic is most salient for the context in which the copy is to be made. Second, the original and the copy are always plural. Any copy is based on multiple sources, including 'the original' but also enlisting the sign-maker's previous knowledge, as well as shared language

and culture related to that which is to be copied. The resulting sign is multi-semiotic, calling on a variety of modes.

This chapter has shown that resemiotization is embedded within ritual. The classroom practices are established by educational authorities but are enacted through the participation of teachers and students. This does not mean that the teachers and students are mechanically acting out ritual. Instead, ritual establishes a framework of expected behavior and within that the teacher, and to a lesser extent the students, determines how it will be acted out.



## 5 The text-chain: resemiotization of the chalkboard text

This chapter further explores the notion of resemiotization by moving beyond the chalkboard to analyze how students write in their notebooks. This chapter will look at several examples of resemiotization and the apparent similarities between each stage of the text-chain, and identify instances of resemiotization by teachers and students. In order to do this, the writing of six Grade 4 students<sup>16</sup> will be analyzed. In examining the kinds of resemiotization that are characteristic of bureaucratic institutions, Iedema (2003:41) notes that ‘thanks to [the] increasing distance from its origin, each recontextualization adds to the “weight”, the institutional importance, the authority, in short, the “facticity”, of what is said and written.’ This chapter argues that within the Mozambican classroom text-chain an opposite process takes place in which ‘durable... forms of language use’ (ibid, 42) are resemiotized into more ephemeral and insubstantial forms with sometimes decreasing levels of ‘facticity’. Despite the rote copying involved in these classroom practices, the resulting texts display considerable variation. This is attributable in part to the poor visibility of the chalkboard text and the students’ unfamiliarity with Portuguese. Variation is also introduced by the choices and abilities of the individual students who creatively construct texts in the process of fulfilling classroom assignments. These texts depart significantly from the original sometimes to the point of maintaining only a surface, unintelligible resemblance. However, safe-writing practices (see Section 4.5) like those described in the previous chapter and elaborated in this chapter allow lessons to move forward while reinforcing the sort of educational ritual (Bernstein, Elvin & Peters 1966) that characterizes the Mozambican L2 classroom.

Written texts occupy a key position in the Mozambican primary classroom. Whether the discipline being taught is Portuguese, natural sciences, or mathematics, student activity is based mostly on copying sentences off the chalkboard into notebooks. There are various reasons for this. First, although the school where this research took place was in an area

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<sup>16</sup> Since part of the analysis in this chapter looks at how these students wrote their names, the students’ real names were used. In order to protect their identities, their surnames are concealed and a transcription of the way they write their own names in their notebooks is used rather than the official form of their names in school records.

where most students and teachers primarily speak one or more African languages, Portuguese was used as the language of instruction (see Section 2.1.1). Research has shown that in classrooms where the language of instruction is not well understood by the students, teachers rely more on rote methods of teaching such as copying from the board and recitation (Rampton 2006; Chimbutane 2009). As Chimbutane (2009:271) noted regarding Mozambican classrooms: in 'L1-medium learning contexts, pupils were actively involved in the lessons, could challenge their teachers' expertise, and showed willingness to learn', while in Portuguese classrooms, pupils were 'in general, unwilling to participate in class and, when they did participate, their contributions were relatively limited both linguistically and in terms of content. As a way of coping with this difficult environment, teachers and pupils resorted to safetalk strategies' (ibid). Copying off the board is thus the written equivalent of safetalk, a sort of safe-writing which allows writing practices to progress despite L2 constraints.

A second reason for the tendency to favor rote writing activities is the large class size, with a single teacher in charge of 50 to 100 students. This places constraints on the types of teaching methods a teacher can employ. Even in cases such as Fátima's classroom (see Section 4.4) in which there was a great deal of interaction between the teacher and the students as a group, there was little one-on-one interaction with individual students. As one teacher told me, a classroom with 70 to 90 students is difficult to control let alone teach (Interview Data, Irena, May 16, 2012). In 45-minute lessons, the teachers I observed needed to deliver the lesson, assign an exercise, and often receive and correct student notebooks. This creates a situation in which each student's assessment must be done in seconds rather than minutes. As a result, teachers assign the types of exercises that can be corrected rapidly, either by asking for single-word or number responses or by having students copy a text off the board that can be verified at the correction stage with a single glance. Finally, as Stein (2008) observed in South African schools, most assessment is done based on written work. While students may master a wide range of semiotic modes, it is often unclear to teachers how to assess drawings or speech. Writing has the advantage of producing tangible artifacts that can be circulated in the educational bureaucracy in ways that oral and performative modes cannot.

In these Mozambican classrooms, the written mode is always tied to the Portuguese language. According to Hyltenstam and Stroud (1993:101), ‘the examination system requires a form of Portuguese that is not congruent with the varieties spoken in Mozambique, nor realistic or “moderate” enough with regard to the fact that Portuguese is a second language for the majority of the students.’ This assessment remained true almost twenty years later. All these factors predispose classroom exercises and evaluation toward either rote copying of set texts or one-word answers often provided by the teacher herself.

### 5.1 Following the text-chain

This section analyzes the text-chain by focusing on the writing of both the teacher and students during a Grade 4 lesson on Portuguese prepositions (Lesson 13) in Fátima’s classroom. Fátima’s classroom was discussed in the previous chapter regarding a lesson about hunting (see Section 4.4).

The first link in the text-chain is the textbook (Figure 23). The page contains a definition of prepositions with examples, a table showing prepositions in sample sentences, and two suggestions for classroom activities (*Vocabulário*, ‘Vocabulary’ and *Produção escrita*, ‘Written production’). The textbook page is a complex multimodal ensemble combining text, images, a table, and color. Before the lesson, Fátima wrote a lesson plan (Figure 21) based on this page describing the activities she planned to use and what the students should be doing. Each item in the lesson plan is identified according to a column headed ‘F.D.D’ for *fases do dia*, ‘phases of the day’. The lesson plan is used by teachers to structure their lessons. However, the writing of the lesson plan is also to a certain extent a practice oriented toward the assistant director rather than the students. The plan should be presented to the assistant director to be signed prior to the lesson (Interview Data, Estevão, May 9, 2012). In practice, only three of more than forty lessons observed were accompanied by a signed lesson plan.

EPC Data: 12/03/2012 Disciplina: Português Tema: Preposições Objetivo: Identificar as Preposições			T4: 10h15 Classe: 4º Turma: A Duração: 50'		
Conteúdo			Atividades		
T	IDD		Professora	Aluno	rubrica
5'	Introdução	- Preposições	- Fugir a Chancela	- Responder	8/10
6'	e	<p>Preposições</p> <p>São palavras que servem para ligar e estabelecer relações entre os elementos da frase.</p> <p>Ex: Hoje é um dia de festa.</p> <p>O vizinho vai a casa.</p>	<p>Passo o passo o tempo no tempo no tempo</p> <p>Passo o passo o tempo no tempo no tempo</p> <p>Passo o passo o tempo no tempo no tempo</p> <p>Passo o passo o tempo no tempo no tempo</p>	<p>Passo o passo o tempo no tempo no tempo</p> <p>Passo o passo o tempo no tempo no tempo</p> <p>Passo o passo o tempo no tempo no tempo</p> <p>Passo o passo o tempo no tempo no tempo</p>	8/10
M		<p>Exemplos</p> <p>a - Vou a escola</p> <p>de - Fui de a escola</p> <p>com - Vou a escola com</p> <p>o - Fui de a escola com</p> <p>de - Vou a escola com</p> <p>em - Vou a escola com</p>	<p>Exemplos</p> <p>a - Vou a escola</p> <p>de - Fui de a escola</p> <p>com - Vou a escola com</p> <p>o - Fui de a escola com</p> <p>de - Vou a escola com</p> <p>em - Vou a escola com</p>	<p>Exemplos</p> <p>a - Vou a escola</p> <p>de - Fui de a escola</p> <p>com - Vou a escola com</p> <p>o - Fui de a escola com</p> <p>de - Vou a escola com</p> <p>em - Vou a escola com</p>	8/10
20'	D/C	<p>Exercícios</p> <p>1- Analisar no texto qual o uso das preposições e corrigir os erros.</p> <p>Passo o passo o tempo no tempo no tempo</p>	<p>Exercícios</p> <p>1- Analisar no texto qual o uso das preposições e corrigir os erros.</p> <p>Passo o passo o tempo no tempo no tempo</p>	<p>Exercícios</p> <p>1- Analisar no texto qual o uso das preposições e corrigir os erros.</p> <p>Passo o passo o tempo no tempo no tempo</p>	8/10

Figure 21: Lesson plan for Grade 4 lesson about prepositions

While Fátima has written a plan for this lesson, it appears that she is basing her chalkboard text on the textbook rather than her lesson plan. This is evident because the text on the

board matches the textbook rather than the lesson plan in which she omitted one of the sentences in the middle of the list (indicated by dashed lines in Figure 22) as well as omitting the last two sentences.

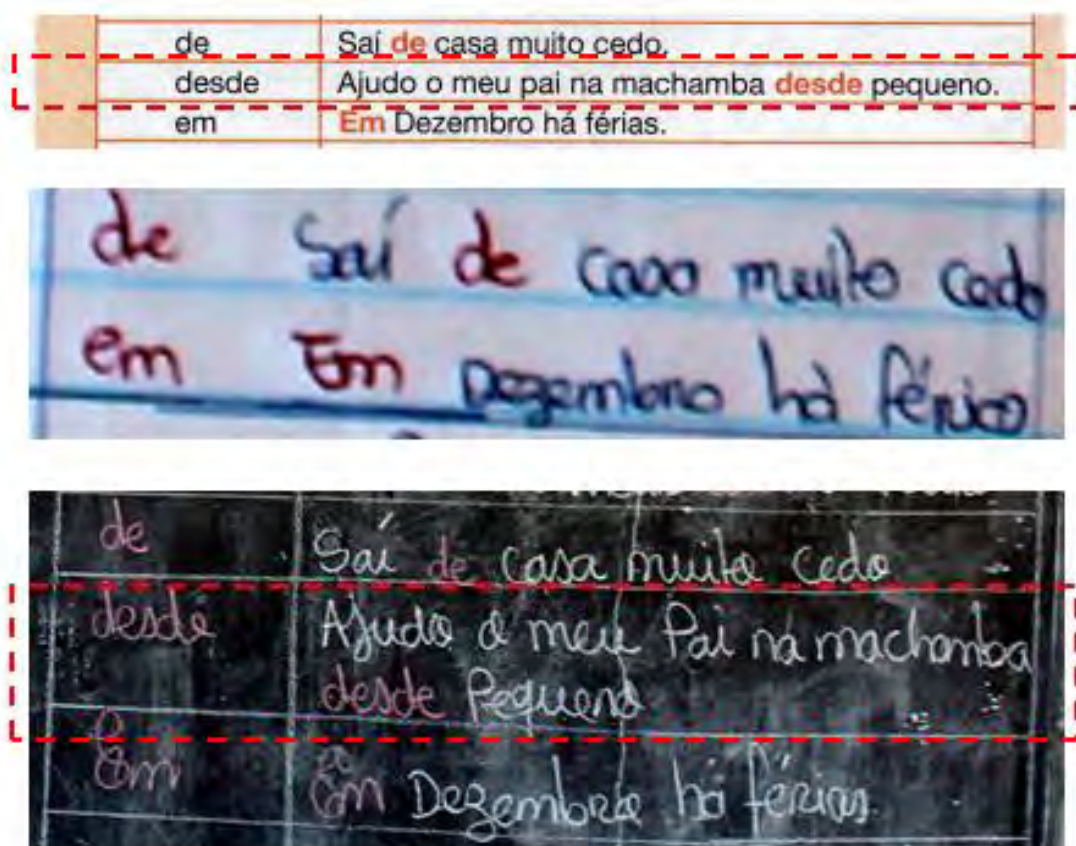


Figure 22: Detail from Grade 4 Portuguese textbook, lesson plan and chalkboard

Building on the writings of Bakhtin (1981; 1993), some educational scholars (Lyle 2008; Nystrand 1997; Skidmore 2000; Haworth 1999) have analyzed classroom practices in terms of a distinction between monologic and dialogic discourse. According to Lyle (2008:225), '[m]onologic discourse is an instrumental approach to communication geared towards achieving the teacher's goals. In contrast, dialogic talk is concerned to promote communication through authentic exchanges.' Bakhtin (1981:342) identified the relationship between a teacher and students as an archetype of the sort of interaction in which one participant has privileged access to the 'authoritative discourse'. This



‘unchallengeable orthodoxy’ (Skidmore 2000:284) exists in an environment in which ‘someone who knows and possesses the truth instructs someone who is ignorant of it and in error; that is, it is the interaction of a teacher and a pupil’ (Bakhtin 1993:81). In comparison with Fátima’s hunting lesson in the previous chapter, this lesson might be said to be more monologic. The hunting lesson featured a text for the students to copy from the board, but the teacher and students first engaged in a series of exchanges that both decentered the textbook and privileged student talk. The teacher, by allowing the students to use their home language, made it possible for them to draw on a wide store of cultural knowledge and vocabulary that built on and expanded the textbook text. The result was a dialogic discourse which was ‘actively responsive, and constitutes nothing more than the initial preparatory stage of a response’ (Bakhtin 1986:69). However, in the current example there is very little dialogue. The text is handed down as something to be copied word for word, leading to practices that are more imitative than creative.

The textbook page (Figure 23) is resemiotized on two very different sites of display: the chalkboard and the student notebooks. In order to do this, the teacher reduces the amount of information to be resemiotized. She copies less than half the information on the textbook page onto the chalkboard. She also reduces the number of modes used by not copying the illustrations, vocabulary lists, and writing activities. This resemiotic reduction is ‘actively responsive’, that is, the text ‘is constructed while taking into account possible responsive reactions’ (Bakhtin 1986:94). Fátima knows her students’ capabilities and also the material and temporal restraints that they have. This particular lesson is a double period of 90 minutes, but the students will still only have time to copy a limited amount of information. The setting also shapes the types of activities that will be possible. In a classroom with 57 students, the teacher doesn’t have time to engage them in the kind of activity recommended at the bottom of the textbook page which says in part, ‘Follow Vitino’s example and write your own schedule’<sup>17</sup> (Figure 23).

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<sup>17</sup> Portuguese text: *Segue o exemplo do Vitinho e escreve o teu próprio diário.*

## Falar e escrever bem

## Preposições

**Preposições** são palavras que servem para ligar e estabelecer relações entre os elementos da frase.

Ex.: Hoje é um dia **de** festa.

O Vitinho vai **à** casa.

Vamos aprender as seguintes preposições:

Preposições	Exemplos
a	Vou <b>a</b> Maputo.
até	Fui <b>até</b> à escola.
com	Estive a brincar <b>com</b> o Pedro.
de	Saí <b>de</b> casa muito cedo.
desde	Ajudo o meu pai na machamba <b>desde</b> pequeno.
em	<b>Em</b> Dezembro há férias.
entre	<b>Entre</b> o amarelo e o azul, prefiro o amarelo.
para	Ela foi viver <b>para</b> Maputo.

1. Procura no texto quatro das preposições do quadro e copia-as para o teu caderno.
2. Constrói novas frases empregando as preposições do quadro.



## Vocabulário

1. Explica o significado da palavra **orgulhosos**.
2. Substitui as palavras destacadas por um antónimo.  
Acordei **cedo** e ajudei a minha mãe **antes** de ir à escola.



## Produção escrita

Segue o exemplo do Vitinho e escreve o teu próprio diário.

Em dez ou mais linhas, escreve sobre o dia do teu aniversário. Diz com quem estiveste e o que fizeste para agradar os teus familiares e amigos.



Figure 23: Grade 4 textbook sample 'Speak and write well'. Section copied indicated by dashed line.

Fátima spent approximately 15 minutes writing the text on the board (Fieldnotes, March 12, 2012). Although she exhibits careful penmanship, the materiality of the chalkboard and its distance from the students makes what she has written quite difficult to see. Even so, having the text on the chalkboard allows all the students access to a shared text. This is important because not all the students have textbooks. Of the six students being observed in this lesson, only two had textbooks and they had their books open to a different page (Fieldnotes, March 12, 2012).

The chalkboard text also serves as the basis for other semiotic modes. Fátima begins the lesson by reading the text on the left-hand side of the board. She then engages in an activity in which she covers the prepositions on the board and reads the sentences to the students asking them to orally supply the correct preposition. As was seen in the previous chapter, the chalkboard text is often reductive, reproducing only a small part of the textbook text, but it also serves as a starting point for a variety of other modes. The chalkboard text is resemiotized into speech when the teacher reads it from the board. It is resemiotized again into a structured, collaborative activity between the teacher and students with the teacher supplying the sentence and the students supplying the preposition. The ways in which teachers resemiotize text into other modes such as speech and gesture in order to scaffold the chalkboard text and increase student comprehension will be considered in greater detail in Chapter 7.

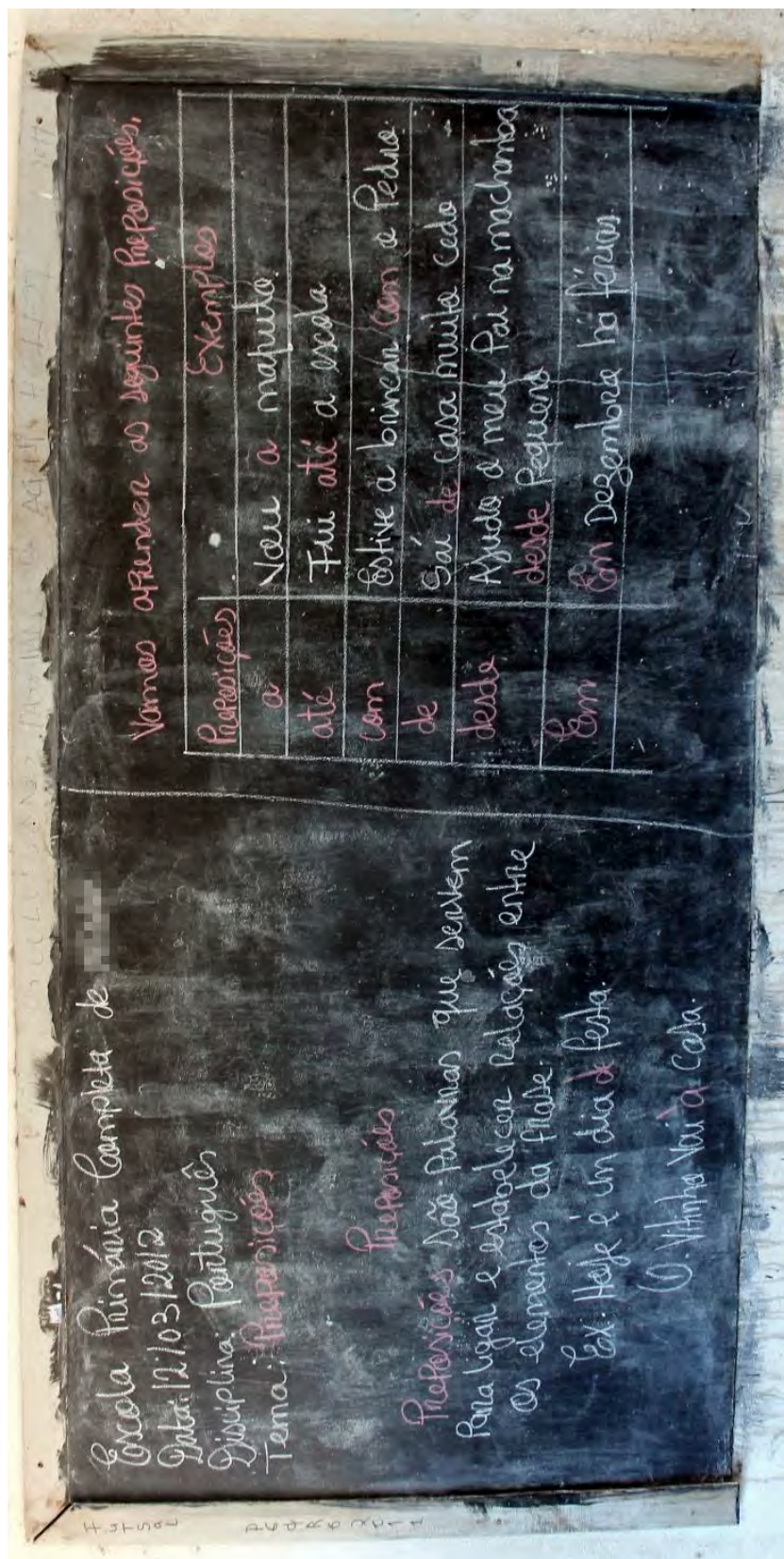


Figure 24: Chalkboard for Grade 4 preposition lesson



After Fátima finishes writing the text on the board (Figure 24), the students have approximately 40 minutes to copy the text into their notebooks. The six students observed in this lesson copied the chalkboard text with varying degrees of precision. The students were seated at two desks in the back of the classroom with three students at each desk (Figure 25). During the lessons in which I observed them, these students sat quietly and worked together on the writing assignments. They often shared books and writing materials.



*Figure 25: In a Grade 4 classroom, students sit three to a desk.*

What follows is a description of the ways in which the students being observed in this classroom resemiotized the chalkboard text into their notebooks. Their writing practices demonstrate how even rote copying results in texts with a great deal of variation. Each of the students demonstrates in different ways ‘a capacity to identify oneself or establish similarities with something else while at the same time inventing something original’ (Mbembe 2004:376).

The first student, Isable, copies the chalkboard text into her notebook (Figure 26) in recognizable Portuguese. Her copy of the chalkboard text also mimics aspects of the design and color choices. In the process of copying she has introduced numerous differences. The chalkboard’s two-column layout has been laid out on a single page of her notebook (see left-hand page in Figure 26).



Isable's handwriting has its own particular style that differs from her teacher's cursive. The lines of her table are also configured somewhat differently from the chalkboard version. However, these sorts of surface differences are not the only ways in which Isable's text exhibits difference. Her notebook displays the text in a different context for different readers than the chalkboard. Her notebook text is written partially for herself and partially for her teacher who will see it at the correction stage of the classroom lesson. In this way, her text is the same as the chalkboard text and also different (Pennycook 2007:585).

For the second part of the lesson, Isable copies the exercise from the chalkboard (see Figure 28) on the right-hand page of her notebook and then completes the exercise. Her completion of the exercise takes place in two stages. First, she makes a list of prepositions but then crosses them out and writes a different list (see right-hand page in Figure 26). While Fátima told the students to complete this exercise using the textbook, Isable has no book. Despite this, she manages to complete the exercise by copying the first four prepositions from the table she has already copied into her notebook. When Fátima corrects Isable's answers, she marks some of the answers as correct (indicated by the 'c' sign in red) and one of the answers incorrect (indicated by the 'a' sign in red). The reason her last answer is incorrect is a result of the materiality of chalkboard writing. The word Fátima wrote on the board is *de*, 'from/of'. However, from a distance, it looks like the word *até*, 'to/until'. As a result, when Isable copies the word off the board, she interprets it as *até* (see Figure 27). Then, when she copies this word down as one of the answers in her exercise, Fátima marks it as incorrect since she has already listed *até* as one of her answers.



Figure 27: Comparison of the words *até* and *de* written by the teacher (left) and a student (right).



Isable's notebook text represents the end stage of this lesson's text-chain. A text that started in the textbook has made it into her notebook via the chalkboard and then been corrected by the teacher. The variation in Isable's copy of the chalkboard is partly attributable to the materiality of the chalkboard text, its distance from the students, and the ambiguities that arise from writing on an uneven surface that contains chalk marks from previous erasures. Even though she does not have a textbook, Isable is able to complete the exercise by basing her answers on her own notebook.

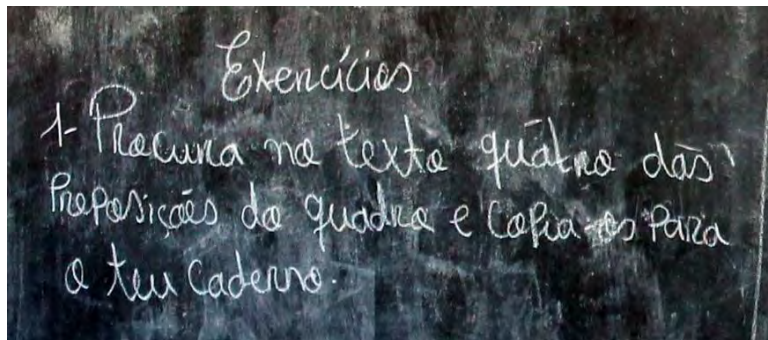


Figure 28: Detail from chalkboard for Grade 4 Portuguese lesson

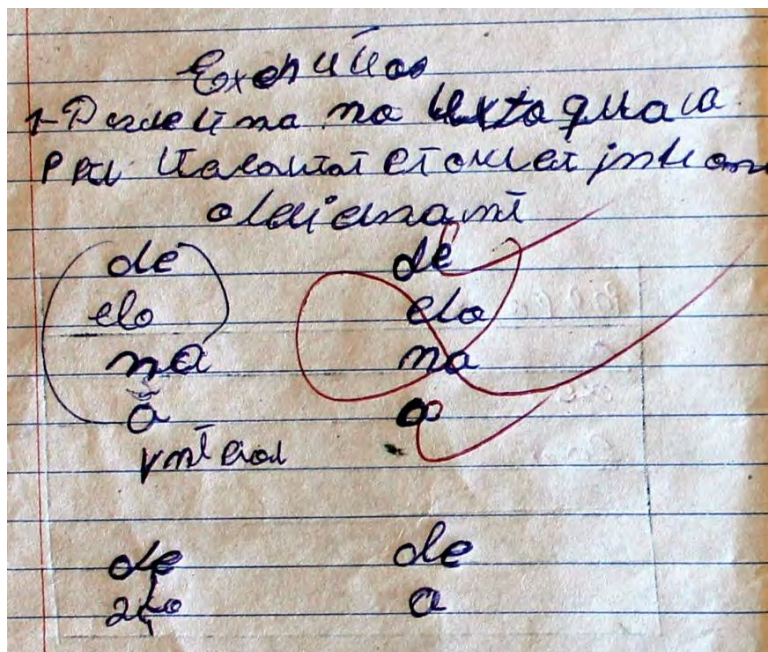


Figure 29: Detail from Nomela's notebook

Seated to the right of Isable is Nomela. Nomela completes the exercise in a mixture of Portuguese and pseudo-Portuguese (Figure 29). It has been proposed that pseudo-writing, a



form of scribbling, is used by children in order to aid in the recall of orally dictated sentences (Harris 1995:86). Here, Nomela seems to be using pseudo-writing as a form of shorthand for the Portuguese text on the board. However, when she writes the answers to the exercise, she does so in legible Portuguese. The reason for this is probably that Fátima will be correcting only the answers and not the writing of the exercise. This demonstrates the active role that students take in rote copying exercises. Nomela economically expends the most effort in terms of legibility on the part of the lesson that she knows will be evaluated. For a great deal of the time in the classroom, students only need to appear busy. The requirement for the copying portion of the lesson is that the students are copying something. Even if the result is unintelligible, the students appear busy and the result is deemed appropriate. In another classroom, the teacher exhorted her students: *Vamos copiar!* 'Let's copy!' (Fieldnotes, May 10, 2012). Another teacher, walking between the desks, expressed disapproval if her students were not writing, saying to some students: *Ainda não acabam?* 'You still haven't finished?' and to another student: *Ainda não iniciou?* 'You still haven't started?' (Fieldnotes, March 7, 2012). In this classroom ritual there is an expectation that the students should be copying the text off the board into their notebooks. Nomela capitalizes on that by writing pseudo-Portuguese so that she appears busy, and then using Portuguese for the text that she knows will be scrutinized more carefully by the teacher. This demonstrates the partiality of representation (Kress 2010:70) in resemiotization. The sign-maker produces the part of the originating sign that is criterial for that moment. Nomela does this by representing different parts of the originating sign in different ways because they will be evaluated based on different criteria. Her writing sample actually shows that she made several attempts at writing a list of prepositions (Figure 29). The list which the teacher corrects contains these four words: *de*, 'of/from'; *ela*, 'she/her'; *na*, 'in the'; and *a*, 'to'. Only *de* and *a* are marked by the teacher as correct. Like Isable, Nomela was also working without a book. I did not discover the source of her list of answers for this exercise, but they do show that she was aware that she needed to make a list of words.

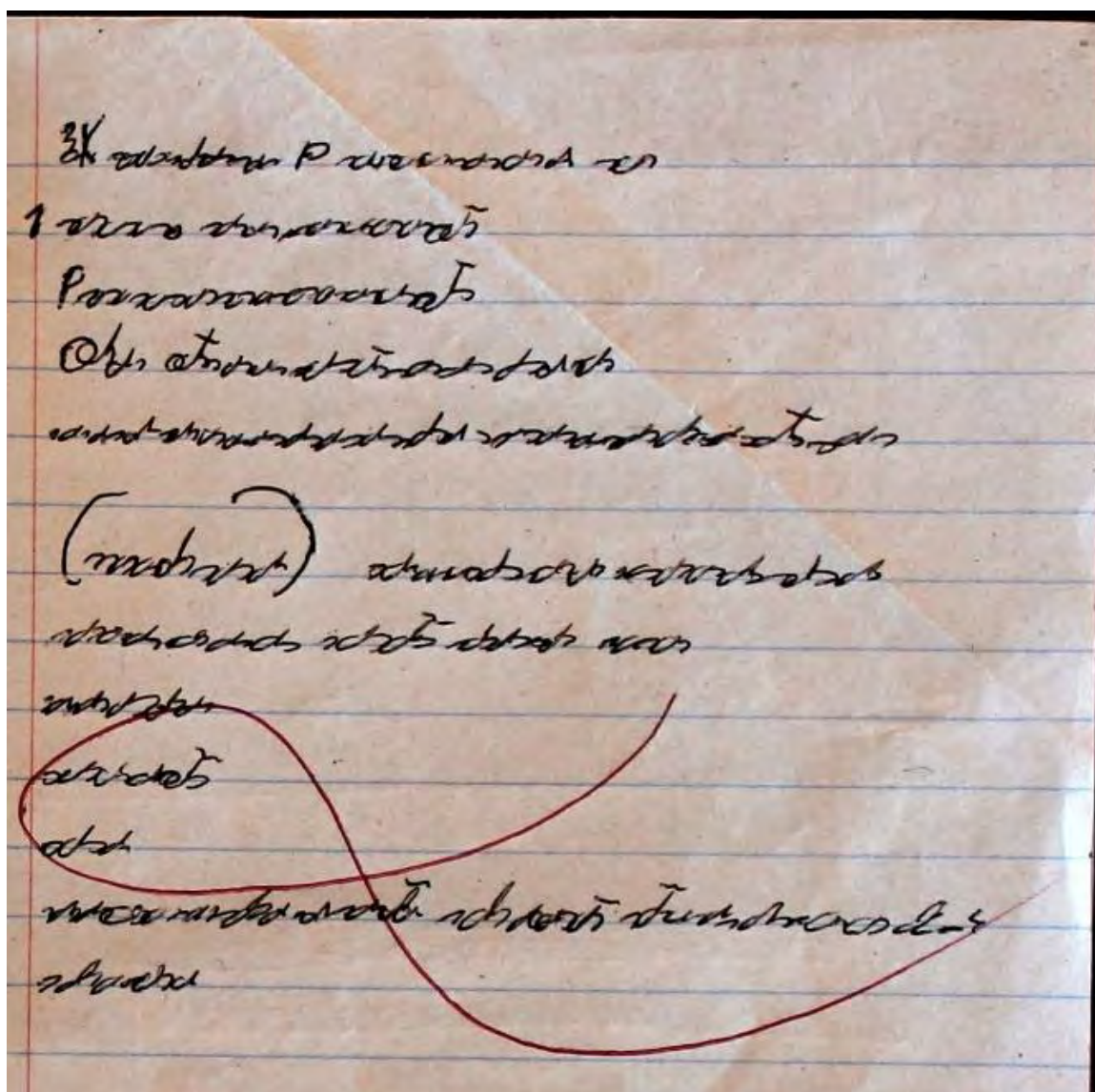


Figure 30: Apri engages in pseudo-writing.

Seated on the other side of Nomela is a third student, Apri. She struggles with copying the text and completing the exercise. While Nomela used pseudo-writing for the copying portion and standard cursive for the exercise, all of Apri's writing is done in a tight dark scrawl with only a slight resemblance to cursive writing. There are no recognizable Portuguese words on the page. Despite this, she still takes her notebook to Fátima for correction who marks it incorrect with a large 'a' symbol written over the top of the text which appears to most resemble the exercise (Figure 30). While Nomela was able to write Portuguese or pseudo-Portuguese depending on the need of the moment, all the samples of

Apri's writing collected during this research are done exclusively in this same pseudo-writing. There is one recognizable element in her writing. The parentheses on her page are in a similar place to the parentheses that Nomela drew around part of her text (Compare Figure 29 and Figure 30). As such, it seems likely that Apri is copying from her neighbor. While she does not make legible words, she does engage in the text-chain by writing something in her notebook that resembles the text.

The significant amount of variation in the notebooks of these three students' notebooks shows that resemiotization is never a case of photographic reproduction. Any resemiotization of a text, however carefully done, results simultaneously in sameness and difference (Pennycook 2007:585). Each student makes choices about how and what they will copy. The result is writing that is original even while being imitative.

Kress (1997) believes that when children begin to write they must overcome a significant 'brick wall' in their understanding of what writing means. Prior to learning to write, children produce 'motivated signs' which correspond visually to the thing they are depicting. For example, in the case of a drawing of a person, a child may draw a round shape for the head and lines for arms and legs. In the process of becoming readers and writers, however, students must learn that the shapes which they are making do not have a visual correspondence with whatever that word represents. Kress (1997:69) writes:

Children ... make signs which are founded on a motivated relation between meaning and form, signified and signifier. That is the overriding principle with which they approach the world of alphabetic writing. And then they come up against the brick wall of a system which in a number of ways and at a number of levels resists an understanding in those terms.

This explains the many instances in which students copy words off the board incorrectly (see for example Figure 12 in Section 4.3). Without the ability to infer information in cases of ambiguity, they simply draw a picture of the words, that is, they draw a representation of the shapes they are seeing on the board into their notebooks to the best of their ability. Not knowing what those shapes are meant to represent does not prevent them from successfully fulfilling the requirements of a particular classroom ritual. In the same way, the pseudo-writing exhibited by these students is a way of drawing what they see on the board albeit in a more abstract representation than those students who are able to more carefully

form shapes that look like letters and words. If this is the case, then it appears that many of the students observed in this research were dealing with Kress' 'brick wall' by never going over it at all. Although it appears that they are 'writing', they do not necessarily associate those words with anything in the real world. For some students, writing activities are a sort of drawing activity. From the outsider's perspective it appears that a classroom of students is engaged in reading and writing Portuguese. Closer inspection indicates a high probability that they are processing writing not as words but as shapes, and that rote writing is little more than an elaborate drawing exercise with a limited inventory of alphanumeric shapes.

In addition to pseudo-writing, another characteristic that Isable, Nomela and Apri share is the use of design features to mimic the appearance of the writing on the board. The students frequently copy the color choices made by the teacher (which were themselves copied from the textbook). For example, in the hunting lesson (Lesson 14), the notebook texts of the students mimic the design and color elements of the board even though, in the case of Nomela and Apri, the writing they are doing is mostly unintelligible (Examples 2 and 3 in Figure 31). This aestheticisation (Blommaert 2008:113–114) of the text allows the students to create a convincing looking text despite their difficulties in understanding its meaning.

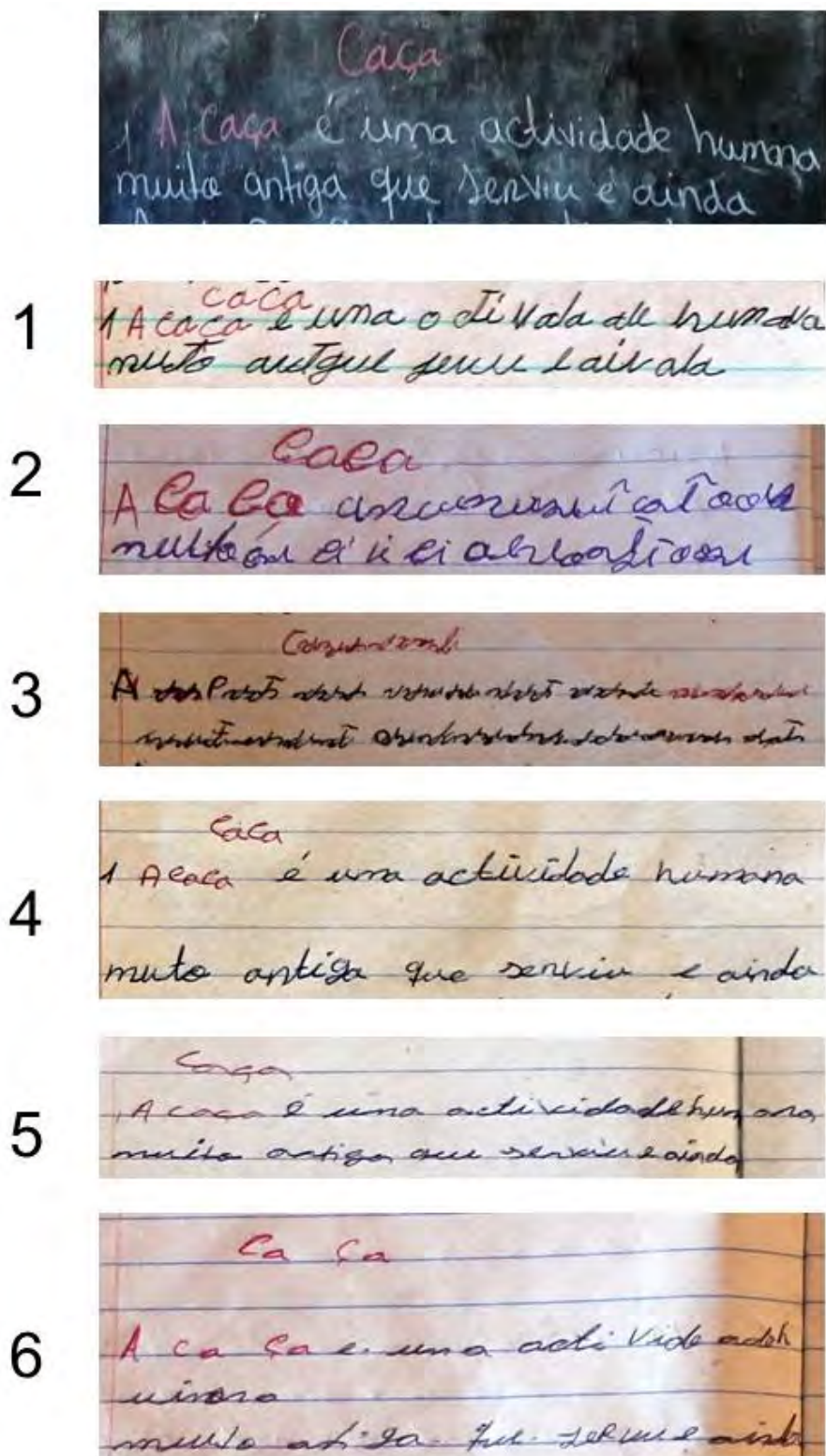


Figure 31: Detail of chalkboard and notebook writing from a Grade 4 Natural Science lesson. 1: Isable, 2: Nomela, 3: Apri, 4: Ancha, 5: Ruth, and 6: Helena

Yet another way in which the writers imitate the design on the chalkboard is through line breaks. Line breaks are the result of running out of space on the page. When a writer gets to the right-hand margin, they break off the sentence and then begin writing again on the left-hand side of the page. It appears that these students, however, do not interpret line breaks in this way. The students appear to interpret lines as meaningful units and they keep the same amount of text on each line following the design of the chalkboard. This is done even when one of the writers, Ruth, comes to the end of the page before she succeeds in writing all the text. She improvises by continuing across the inner fold onto the page on the right (Example 5 in Figure 31). Helena comes to the end of the page, but makes a line break and finishes the phrase on the same page (Example 6 in Figure 31). However, instead of continuing the next phrase of the sentence on the same line, she starts a new line. These examples show that the students are aware of design. They do not interpret the position of words, their color and the overall layout of lines as arbitrary. Instead, their use of these design elements shows that they approximate the meaning of the text through any means possible. Their erratic and variable spelling of words would indicate that the words themselves are not particularly meaningful. However, extra-linguistic semiotic modes like design and color (Kress & Van Leeuwen 2002) allow them to participate in the classroom ritual.

While classroom exercises are meant to allow students to provide their own answers, in some cases the teacher will provide the answers for the students. For example, in a Grade 3 Portuguese lesson (Lesson 19), the exercise required filling in the blanks of a chalkboard text. After writing out the text, the teacher also filled in the answers on the board, turning the exercise into a simple copying activity (Figure 32).



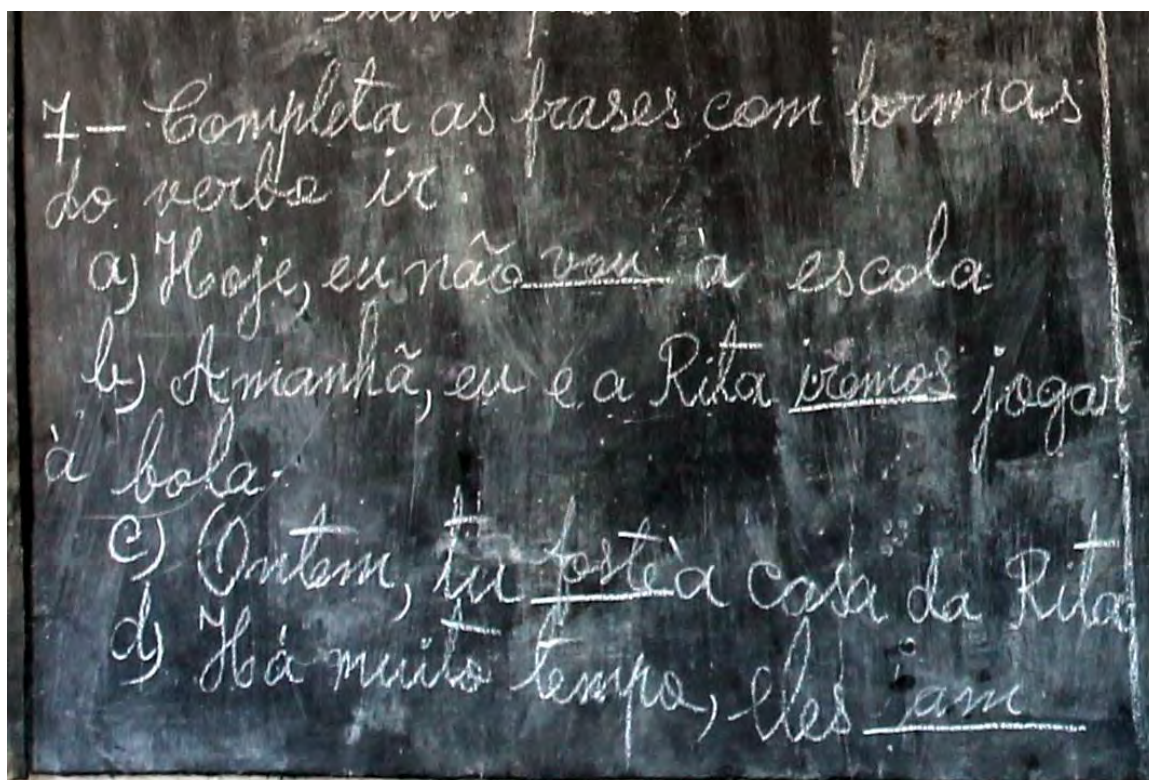


Figure 32: For a Grade 3 Portuguese lesson the teacher provides the answers.

One student began by filling in the blanks with random words, but after the teacher wrote the answers on the board she crossed out her answers and wrote in the answers from the board (Figure 33). An exercise like this one is given to the students as an authorized discourse (Bakhtin 1981) which appears to have space for student originality but is actually handed down as an immutable text.

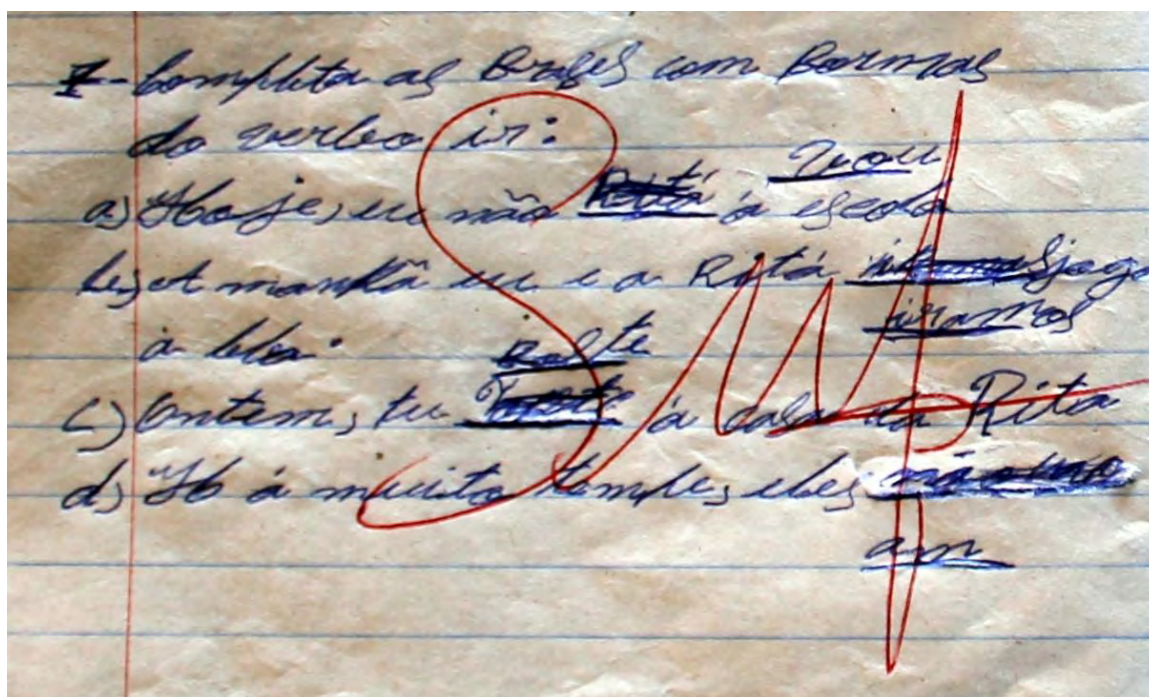


Figure 33: A Grade 3 student crosses out her answers and writes in the answers provided by the teacher. 'Suf' indicates that the work is suficiente, 'sufficient'.

These examples show that in the classroom, resemiotization of the same text can exhibit significant variation. Some students create legible facsimiles of the chalkboard text while others use pseudo-writing in order to partially fulfill the classroom ritual by creating inscriptions that resemble the design of the text without actually writing intelligible Portuguese.

## 5.2 Students writing their names

During most lessons, the students did not write their name in their notebooks. However, in some cases teachers required their students to write their names in their notebooks, for example, when they were taking a test. During the third period of the day, the students in Fátima's class took a mathematics test (Lesson 15). Because the test needed to be handed in for correction the teacher substituted a line in the heading. She erased the word *Tema*, 'Theme', and wrote *Nome*, 'Name' (Figure 34).





Figure 34: Grade 4 students write their names.

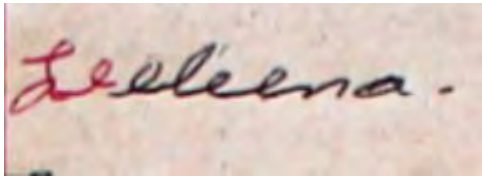
With the exception of Helena who did not write her name, the students wrote their names with varying degrees of exactitude. Their names as written in their notebooks are: Isable, Nomela, Apri, Ancha, and Ruth. One thing that is immediately noticeable about these names is that they are written in print letters. All other writing on the page is done in cursive. What is the explanation for this different writing style? Although print letters appear extensively in textbooks from Grade 1 on, the students are taught to write only in cursive. If students in Mozambican schools begin learning to write in cursive, the question becomes, 'Where did they learn to write their name?' I did not discover how these students learned to write their names, but the fact that most students write their name with print letters suggests that they underwent a similar process and that the name is a special form of writing. Kress (1997:65)

believes young children often remember their name as a whole rather than as a series of letters. Rather than basing their name on the chalkboard, students have memorized how to write their name or copy their name off the front of their notebook. As Kress writes, 'The name, it seems, provides a particular challenge, motivation, mystique for the child: this is a bit of writing in which they are positively interested' (1997:62). Three of the five students in this sample only wrote their first name. Those that did use their surname wrote it in cursive. Several times during classroom observation when students were asked to write their surname they had to reference the cover of their notebook to confirm how it was written (Fieldnotes, March 9, 2012). The name of the student is necessary in this lesson in order for the teacher to assign a mark to the correct student. In general, however, names are quite rare in the notebooks that were observed.

Helena is an exception to the name writing practices of the other students. Unlike her peers, Helena does not write her name on the top of the mathematics exam page. Instead, she writes the standard heading, *Tema*, 'Theme', and leaves the line blank (Figure 34, item 6). This shows that Helena was anticipating the default chalkboard heading and did not realize that the teacher had changed it due to this being an exam.

When she does write her name, it is idiosyncratic (Figure 35). First, unlike her peers, Helena writes her first name in cursive. The letter 'H' in her name has an unusual shape (Table 6, item 1). In another place on the same page of her notebook she has written an uppercase 'H' in a way that looks more like a print 'H' (Table 6, item 4). She also uses a similar shape for the letters 'Le' (Table 6, item 3). The origin of this unusual writing style could possibly derive from Helena's instruction in cursive during Grade 1. In the Grade 1 Portuguese textbook there is an example of the name 'Helena' which looks very similar to hers (Table 6, item 6). When Fátima writes Helena's name she uses a similar print style for the 'H' (Table 6, item 5). Comparing two samples of Helena writing her name in consecutive lessons shows that she writes it in different ways. In one lesson she spells it 'Heleena' (Table 6, item 1) and in another lesson she spells it 'Helena' (Table 6, item 2). Unlike the resemiotization of a text off the chalkboard into the notebook, the writing of the name is not based on the chalkboard text. Instead, in Helena's case, it appears to be a text that is based on a way of writing that she learned in Grade 1. By Grade 4, Helena does not use the ornate cursive H in the rest of

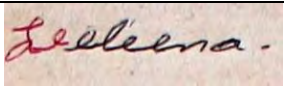


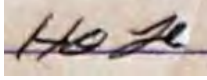
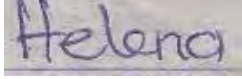
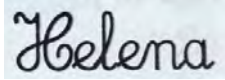
her writing, instead she uses a simple print H. However, she retains the ornate H in her name.



*Figure 35: Helena writes her name.*

At Kwadoka Primary, it was quite common to see students having trouble writing their names. This makes sense if school for them is largely a matter of copying things directly off the chalkboard, a place where the word *nome*, 'name', might be present but the writing of the name was left to them. A name may therefore be something of an unfamiliar text for students in a classroom ritual that minimizes individuality (Rampton 2006:192).

Table 6: Samples of Helena's handwriting

#	Sample	Transcription	Description
1		Heleena	Helena writes her name at the top of the notebook
2		Helena	Another example of writing her name at the top of the notebook
3		Le	Helena writes 'Le' in her notebook
4		Hoje 'Today'	Helena writes 'H' in her notebook
5		Helena	The teacher writes 'Helena'
6		Helena	The name 'Helena' written in the Grade 1 Portuguese textbook

The writing of a name is a unique activity in the text-chain. Its absence from the majority of notebook pages is indexical of the depersonalized nature of the classroom writing ritual. The difference between print and cursive writing suggests on the one hand a special status of the first name for a student, but on the other hand illustrates the decontextualized nature of the resemiotization that occurs, usually in cursive, in a lesson.

### 5.3 Writing the heading

As was mentioned in Chapter 4, the heading occupies a prominent place on the chalkboard. Students are required to write the heading for each lesson in their notebooks. This requires a considerable amount of time, with students frequently only having enough time to write the heading on their notebooks before the lesson ends. For the lesson on Portuguese prepositions (Lesson 13, see Section 5.1 above), Helena copied the content of the heading accurately, but her writing displayed certain irregularities. The text of the heading on the board (Figure 24) reads as follows:

Table 7: Grade 4 chalkboard heading with translation

Transcription	Translation
<i>Escola Primária Completa de...</i> <sup>18</sup>	Complete Primary School of...
<i>Data: 12/03/2012</i>	Date: 12 March, 2012
<i>Disciplina: Português</i>	Subject: Portuguese
<i>Tema: Preposições</i>	Theme: Prepositions

Helena's text looks like this:

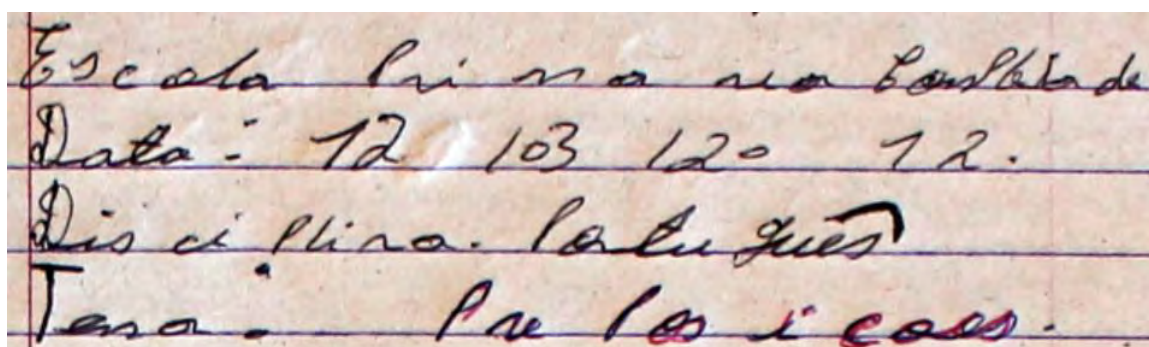


Figure 36: Helena writes the heading.

A transcription of Helena's heading follows:

Table 8: Transcription of Helena's notebook heading

<i>Es c ola Pri na ria ComPleta de...</i>
<i>Data: 12 /03 /2o 12.</i>
<i>Dis ci Plina. Potu guês</i> <sup>19</sup>
<i>Tema: Pre Pos i coes.</i>

<sup>18</sup> School name omitted for confidentiality.

<sup>19</sup> The caret symbol 'ˆ' extends over the 'e' and 's' in the written sample.

The text is characterized by unusual spacing in the middle of words. This spacing is attributable to the way in which students copy from the board letter-by-letter and is indexical of the sort of letter-based, rather than word-based, writing they are doing. For example, during the lesson on grams and kilograms (Lesson 36, see Section 4.5), the teacher was observed pausing after every one to four words that she wrote on the board in order to consult the textbook (Fieldnotes, May 10, 2012).

// indicates a pause to look at the textbook.

*3KG // de açúcar // e 250 // g de chá. // Qual foi o peso // total // dos  
productos // comprados //*

However, students observed during the same lesson were pausing after every one or two letters. The students display a ‘head-bobbing’ motion in which they look back and forth frequently between the chalkboard and their notebooks (Fieldnotes, May 8, 9, and 10, 2012). These writing patterns indicate two things. First, the teacher as an experienced writer with a more developed knowledge of Portuguese, was able to hold a certain amount of information in her memory while copying onto the board, and this information was organized in her memory with words and numbers as the basic units. Second, the students were only able to hold one or two letters in their memory while writing before needing to look at the board again. This suggests that while the teacher relates to the text on the board on the basis of meaningful words and numbers, many students relate to the chalkboard text on a letter-by-letter basis. This potentially explains the spacing in Helena’s writing of the heading. After writing as many letters as she can remember, she looks at the board again and then leaves a space before writing again.

What is striking about this example from Helena’s writing is that it appears that she has not internalized common words found in the heading on the chalkboard. The heading is written by students in every lesson. Therefore a 10-year-old student attending Grade 4 at this school would potentially have been writing similar headings six times every day, five days a week for more than three years. Yet basic words like *escola*, ‘school’ and *completa*, ‘complete’ are still just sequences of alphanumeric shapes. The result for Helena is an arbitrary string of letters and numbers which she copies repeatedly off the board without necessarily being able to associate those forms with any type of meaning. In this particular

classroom ritual, however, students are able to complete the work as long as what they write on the page looks like what is on the board.

#### 5.4 The final resemiotization

Despite the amount of time students spend writing in their notebooks, there is evidence that notebooks are not highly prized. The accumulating detritus of a single school day usually results in a large pile of notebook and textbook pages and scraps being swept out of the classroom. Notebook pages blowing in the wind, caught in trees, and trod underfoot were constant elements of the linguistic landscape observed at this research site. Notebook pages also appeared in unusual places, as toilet tissue in the latrines, or as wrappers for fried dough or a portion of salt (Figure 37). The same was true for the textbooks.



Figure 37: Notebook and textbook pages embedded in school life. Left: a day's accumulation; Center: notebook paper for wrapping fried dough; Right: a piece of a textbook page used to hold salt.

Another piece of evidence surfaced when I requested some of the students' notebooks for my study in exchange for new blank notebooks. Students unhesitatingly complied and the teacher facilitated the process, handing over notebooks containing months of classroom writing in exchange for empty notebooks. One Grade 3 teacher, Irena, stated that students are supposed to keep their notebooks and test results but that in practice they rip up a test if they get low marks (Fieldnotes, May 17, 2012). The marginal status of these notebooks highlights an important difference from the resemiotization posited by Iledema. The texts analyzed by Iledema (2003:42) become 'rematerialized in a less ephemeral way as printed writing.' Iledema claims that as discourses are resemiotized they become increasingly

formalized and more difficult to change. In his case, committee discussions lead to written reports which eventually result in formal blueprints and finally a building. What was observed in these Mozambican classrooms was almost the opposite. The teacher began with a printed text and resemiotized it onto the chalkboard which is a highly ephemeral medium. The students then transferred this to their notebooks with a great deal of variation. By the end of the day, the chalkboard texts had been reduced to dust and the notebook writings were forgotten or converted to rubbish, toilet tissue or wrapping paper for fried dough balls. Even the relatively durable textbooks were not immune to this degradation in the long term. A possible reason for this is that the texts in themselves are not seen as having intrinsic value. The decontextualized knowledge and the foreign language in which it is presented result in texts which have value only within the classroom ritual. Outside the classroom, their extrinsic value is in their materiality. The value of textbooks and notebooks is found in the paper of which they are composed. In a final resemiotization, the text itself becomes insignificant and only the paper is of value.

While most text-chains end in the student notebooks, there are instances of resemiotization that do not end in the classroom. One is attendance. Each day the teacher calls the names of the students who then respond by saying: *Presente!* 'Present!' Those students who are not present have an 'F' (for *falta*, 'absent') placed in a grid corresponding to the date and their name (Figure 38). This information then makes its way to the office of the assistant director who passes it on to the provincial level. The absent student is resemiotized into a mark in the attendance book, while students who are present are not marked. This information is presumably resemiotized into other texts as it moves along a text-chain that extends beyond the classroom to educational offices locally, provincially, and beyond.



Hês de Março

	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	3	4	5	6
1. [Name]	X																														X
2. [Name]	X																														X
3. [Name]																															X
4. [Name]																															X
5. [Name]																															X
6. [Name]																															X
7. [Name]																															F
8. [Name]																															X
9. [Name]																															F
10. [Name]	X																														X
11. [Name]																															X

Figure 38: Detail from attendance book

Another example of resemiotization that extends beyond the classroom is test results. The students are evaluated in various ways through homework assignments and periodic exams. This information, in the form of numbers or letter grades, forms a part of the student's permanent record as well as forming parts of reports that move through the educational system. The grade that students receive is the distillation of many hours of time spent in the classroom. All the writing, speaking and other types of interaction that occur in the classroom are reduced to a single mark in a teacher's grade book. This is akin to an example given by Iedema in which information about a child's developmental difficulties was progressively resemiotized through a bureaucratic process until she was categorized as 'intellectually disabled' (Iedema 2003:41). Attendance records and grade reports are end-stage resemiotizations associated with a student that move through the educational system and represent many hours of classroom practices with a single number.

## 5.5 Conclusion

This chapter has shown resemiotization in action by following the text-chain in several Mozambican classrooms. I have argued that the texts which are resemiotized in the classroom are simultaneously reductive and expansive. Usually, the lesson plan is a copy of the textbook, the chalkboard text is a copy of the lesson plan, and the notebook texts are copies of the chalkboard. However, the various material, temporal, and linguistic constraints teachers and students face in the classroom result in texts that are significantly different

from the originating texts. The intricately designed text in the textbook is reduced to a simple block of hand-written text in possibly two colors on the chalkboard. The students reduce that text further by omitting parts of the text or by eliminating text altogether and engaging in pseudo-writing that is possibly meant to make the teacher think that the student is working. Resemiotization in these Mozambican classrooms is therefore first characterized by reduction. The semiosis at each stage involves a reduction in the amount of information which is being copied. Due to the unfamiliar language of instruction, the lack of textbooks, and the limited class time, semiotically rich written texts are reduced. This does not mean that the total of what a student knows about a subject is represented by what they have written in their notebooks. The written mode in the classroom is chief in importance, however, in terms of how students spend their time and how they are assessed outside of the class (Stein 2008).

However, writing is one of only a number of modes that occur in the classroom. Teachers lecture, engage in dialogue, sing, and use gestures to convey meaning. They scaffold the Portuguese-centric curriculum by shifting into the local language to explain vocabulary and build bridges to existing knowledge. The students engage with these various modes using their own speech, writing, drawings, and gestures. In this sense, the reduced text serves as the basis for an expanded multimodal ensemble. Resemiotization in this context may then be said to be both reductive and expansive. Simple signs can serve as the basis for complex resemiotizations that transcend the printed page. However, the examples of resemiotization in this chapter show few opportunities for students to insert creativity into their copies. Texts are presented as 'authorized discourses' (Bakhtin 1981) that must be copied as exactly as possible in order to receive a positive evaluation from the teacher. The students make the texts their own to the extent that all imitation results in differences (Pennycook 2007). However, most of these lessons favor imitation over creativity.



## 6 Drawing: creativity in the text-chain

The last chapter examined the text-chain in the classroom and showed how texts circulate during a lesson and are in the process changed in various ways. The temporal, material, social, and linguistic constraints that students face in the classroom result in a particular form of writing, rote copying, in which they endeavor to accurately represent the chalkboard text in their notebooks even though it is quite possible they do not understand the words they are writing or why they are writing them. Well-rehearsed classroom ritual enables these safe-writing practices to proceed. Teachers likewise face constraints in the classroom that shape their writing. In less than an hour, they must deliver a lesson to a large group of students, take attendance, mark student work, and more. The teacher presents texts to the students based on her sense of what the students are capable of responding to. At the same time, the teacher is aware of expectations from the educational system concerning what and how she is expected to teach in the classroom.

Texts produced in the classroom also included drawings of various kinds. The weekly schedule of 29 lessons, usually six lessons per day, included two lessons of *Educação Visual Técnica*, ‘Visual Technical Education’ (EVT). These EVT lessons were dedicated most often to drawing. For example, in one Grade 3 lesson (Lesson 20), students drew pictures of animals and fish, inspired by a previous natural science lesson on hunting and fishing (discussed in Section 6.1). Drawing happens more often, however, than the official schedule suggests. In one student notebook from that Grade 3 class, drawings appear in three of the ten lessons which the student has copied off the board. These are formal assignments rather than informal drawings since the teacher has marked the drawings as *Bom*, ‘Good’, with a numerical score assigned (‘14/20’ for example). Observation also suggests a prominent role for drawing in classroom lessons. In the first two-week period of research, nine Grade 3 lessons were observed. Only one of those was specifically EVT, but drawing featured prominently in six of the lessons. Four of the lessons required students to draw a picture of some sort (a flower, an animal, and so on). In two of the math lessons, the students were required to copy texts off the board that included complex designs including circles, boxes and lines. These observations suggest that although drawing is officially taught only twice out of 29 lessons, in actuality students draw during one-third to two-thirds of lessons. The

incidence of drawing does appear to decrease in later grades, but drawing activities were still prominent in Grade 4 and 5 lessons.

This chapter argues that drawing, due to its distinctive affordances (Kress & Van Leeuwen 2006:123), is a special form of resemiotization in which creativity is more prominent. Also, drawing seems to enable the teacher and students to diffuse the tension and monotony of classroom ritual through playful activity (McLaren 1999). Finally, drawing reveals that the object of resemiotization can reside in an idealized 'school-world' or in the everyday world of the student (Taussig 1993).

### 6.1 Drawing animals and fish

In a Grade 3 classroom, students were asked to 'draw an animal for hunting or fishing' (Lesson 20). Students made use of a wide range of sources including the chalkboard, the textbook, fellow students' drawings, and verbal cues from the teacher. They were given a lot of room for creativity in their responses. In comparison with the previous lesson that day on Portuguese grammar (Lesson 19, see Section 5.1), in this lesson there was no single right answer. As long as the students engaged in some sort of drawing and it was neatly done, the teacher evaluated their work positively. Most students have an *estojo*, 'pencil box', with them that contains an assortment of pens, pencils, sharpeners, erasers, rulers, and compasses (Figure 39) which are used by the students for drawing and writing.



Figure 39: Pencil box (Portuguese 'estojo') used to hold school supplies

The use of drawing rather than writing results in a change in the text-chain ritual. For writing assignments, teachers normally write the text on the chalkboard for the students to copy. However for drawing assignments, teachers often refer the students to a page in their textbooks to serve as a model because teachers would find it difficult or impractical to reproduce a detailed drawing on the board for students to copy. The exception is non-figurative drawing like tables and mathematical diagrams which the teachers usually copied onto the chalkboard.

One result of this shift to the textbook is a wider range of student responses. Rather than mechanically copying a text off the chalkboard, the students have more freedom to choose exactly what it is they will draw in their notebooks. In this lesson, the students drew pictures of elephants, impalas, rabbits, hunters, and more. They even drew pictures of things that did not appear in the textbook such as children, houses, and fish. Those students without a

book on their desk would sometimes move around to view a neighbor's book or would instead make a drawing not based on the book.

In the *Plano Curricular de Ensino Básico*, 'Curriculum Plan for Basic Education', drawing is mentioned as one of the basic competencies that students are expected to master within the subject area of Practical Activities and Technology. It is listed together with other artistic activities like sculpting, embroidery and constructing models (INDE/MINED 2003). In practice, none of the latter activities were observed during the fieldwork. This is perhaps not surprising since these activities require specialized resources, while drawing can be done with the materials students already have on hand for schoolwork. The lesson plans elaborated by teachers for drawing activities included more complex activities than were actually implemented in the classroom. For example, in the lesson under consideration, the teacher's lesson plan included small group work, using 'colored pencils, paints (handmade and commercial), felt pens and chalk' to create their pictures. In practice, the work was more individual and the students made use of whatever materials they or their fellow students had available.

While drawing is recognized as an academic subject in the Mozambican classroom, there seems to be less certainty regarding how to actually assess student drawings (see also Stein 2008:148). In the case of a mathematics or Portuguese assignment, the teacher may quickly assess whether a student has written the correct numeric or alphabetical string of characters. However, there is less certainty about how to evaluate a drawing. Should the teacher assess the drawing on its artistic merit or should it be assessed on how closely the drawing resembles the model from the book? For a drawing of an elephant (Figure 40), a student received a mark of 'B' meaning *Bom*, 'Good'. The model on which the drawing was based differs in orientation, color and level of detail from the image in the textbook, but for the purpose of this assignment, the student received a positive assessment.



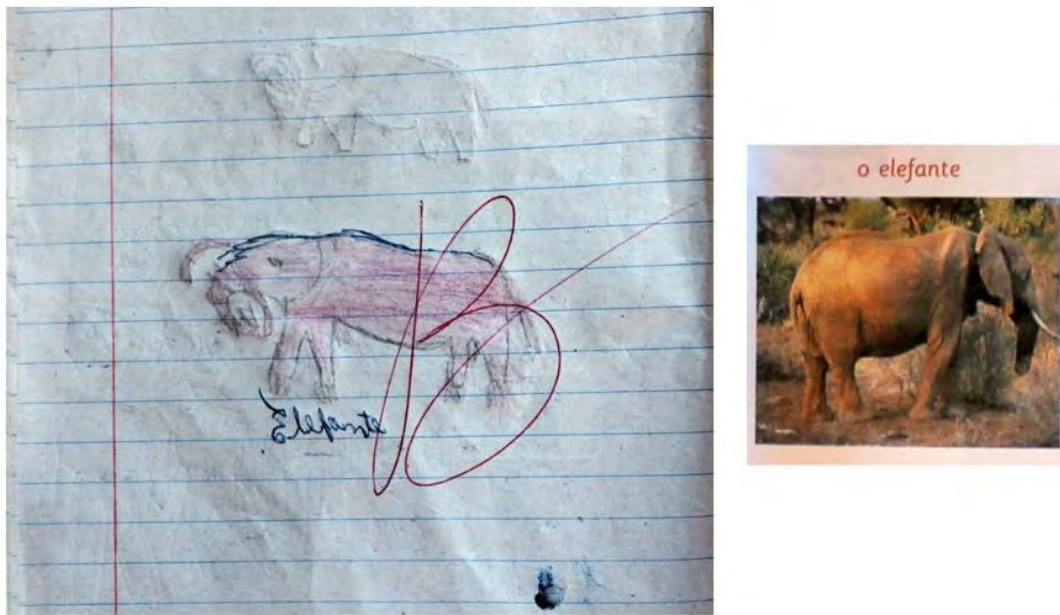


Figure 40: Comparison of a Grade 3 student's drawing and model from textbook

Negative assessments of other drawings seem to indicate that perceived neatness is one of the deciding characteristics. In one case (Figure 41), a student had his work rejected by the teacher. When asked why, the teacher said: *Ele não fez nada*, 'He didn't do anything' (Fieldnotes, March 13, 2012). The drawing is quite detailed but the coloring appears hurried and sloppy.





Figure 41: Sloppy coloring of a drawing results in rejection by the teacher.

Teachers tended to write their marks right over the top of the student's work. When one teacher was asked why this was she said it was so that the students will *sentir satisfeitos*, 'feel satisfied' (Fieldnotes, March 13, 2012). Having their work marked did seem to be an important part of the classroom ritual for the students. When the teacher asked them to bring their work to her desk for correction they always eagerly complied, forming a large queue. Failure to receive a positive evaluation could result in disappointment. One boy put a great deal of effort into embellishing a drawing of geometric shapes only to have the work rejected because he did not seem to understand the actual assignment to mark parallel and perpendicular lines in different colors (Figure 42). He returned to his desk with a look of disappointment on his face (Lesson 28).



Figure 42: A Grade 3 boy has his work rejected because he did not follow the directions correctly.

Student work was not always evaluated after every lesson. According to one teacher, correction marks ranged from *não fez nada*, 'didn't do anything', to *bom*, 'good' (Table 9). Depending on the lesson, student work sometimes also received a numerical score.

Table 9: Correction marks used by teachers to mark student work (Fieldnotes, May 8, 2012)

Correction mark	Portuguese	English translation
a wavy line	<i>não fez nada</i>	didn't do anything
'C'	<i>correcto</i>	correct
a slash or 'a'	<i>incorrecto</i>	incorrect
'Suf'	<i>suficiente</i>	sufficient
'B'	<i>bom</i>	good

In the case of figurative drawings, teachers seem to be less strict about following directions closely. For example, during the hunting and fishing lesson (Lesson 20), one student drew a picture of two men and two fish (Figure 43). Despite this not matching the illustration in the textbook, the drawing received a 'B' for *Bom*, 'Good'. Drawing assignments are less restrictive than writing, allowing for more student creativity. While a mathematics or

Portuguese lesson expects certain answers to be correct, there is less restriction in drawing regarding a 'correct' answer.

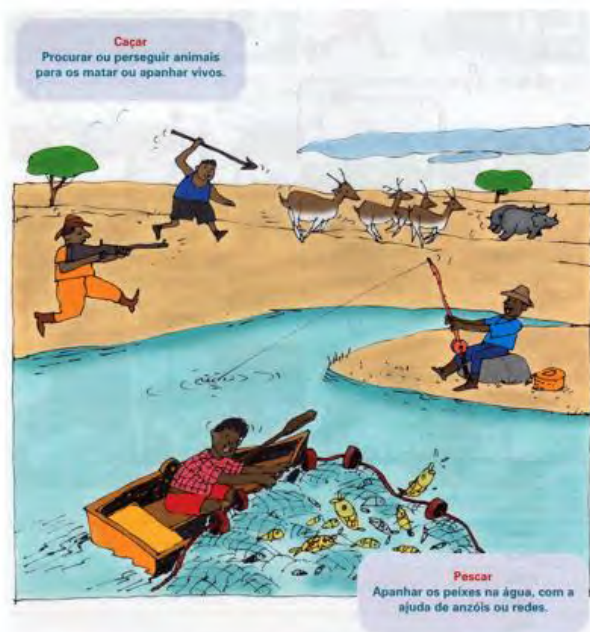


Figure 43: Grade 3 student drawing and the textbook page it was based on for an assignment to 'Draw a picture of a hunting animal or fish'

Stein (2008) claims that students are capable of rich expression in a variety of semiotic modes but that educational assessment forces teachers to emphasize conventional writing

since it is more easily evaluated (see discussion in Chapter 5). An unfortunate consequence of this is that what students know is often poorly reflected by what they can write, especially in the case of writing in the L2. Stein (2008) describes how a young South African girl produces very different texts depending on whether she is speaking, writing, or drawing. Each of these modes has different meaning potentials. Writing in English or Zulu produces texts with little information compared to the rich texts created when she presents her story orally or as a drawing. Because assessment is oriented toward writing in the standard norm, the educational system under-represents the student's understanding and ability to communicate (Stein 2008:148).

Drawings possess a great deal of semiotic potential in the context of L2 classrooms since students' expressions are not constrained by the linguistic barriers they are faced with when writing. De Souza (2003:35) discusses how in certain cases drawings rather than text are carriers of local meaning. In his analysis of Brazilian indigenous texts which contain both writing and drawing, De Souza examines the case of the Kashinawa who are in the midst of an emerging literacy tradition in which 'alphabetic writing is possibly seen to have only a literal, propositional semantic value' (ibid). This relationship between words and drawing seems to be at work in these Mozambican drawings as well. Words do play a part in the drawings of Mozambican students, but they are supportive rather than central to the text. Many of the drawings were labeled in some way. The label 'elefante' on the drawing of an elephant (Figure 40) was added by the teacher suggesting that a proper drawing needs to be labeled in classroom work. What the label actually says seems to be of lesser importance. This can be seen in the drawings below in which fish are given various labels such as *peixe* 'fish', *pescar* 'to fish', and *corvina* 'corvina fish' (Figure 44). This even included nonsense words such as *poonio*. In one case a drawing of gazelles and hunters was labeled *Coelho*, 'Rabbit' (Figure 45).





Figure 44: Grade 3 students draw and label a fish (Top) based on a textbook model (Bottom).

The textbook contains an illustration showing labeled photos of fish (Figure 44). One of the fish is labeled *corvina*. For some reason, except for the label *peixe* 'fish', *corvina* is a frequent label given to the students' drawings in this lesson. It could be that this is the most 'fish-like' of the photos, conforming in some way to the mental image of the fish in a way that the more oddly shaped *raia*, 'ray' and *espadarte*, 'marlin', for example, do not. The teacher's drawing of a fish (Figure 46) on the chalkboard appeared without a label. So although words frequently accompany drawings, they are not always present.

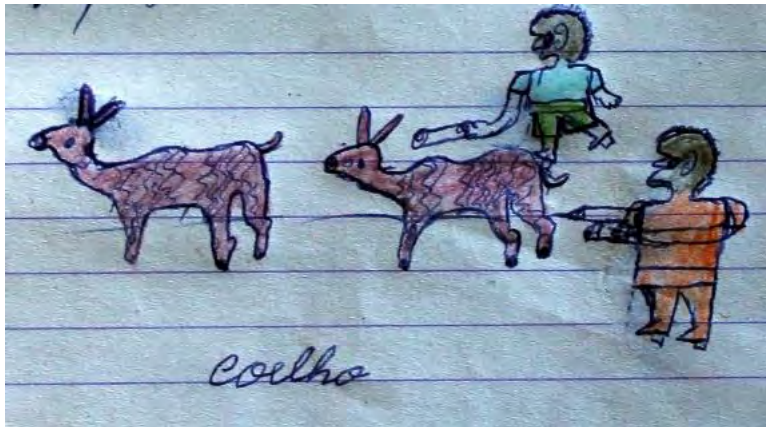


Figure 45: Grade 3 drawing of gazelles and hunters labeled coelho, 'rabbit'

The students' drawings are richly colored and display a remarkable variety of details. They also show important similarities. The fish are almost all facing to the left. Their fins, faces and basic body shapes have much in common. The question is, why are there so many fish and specifically a fish called *corvina*? The choices children make when drawing can be partly attributed to their interests and the characteristics which they believe to be criterial at that time (Kress 2010:70).

The fish in this lesson seem to come from two sources: the textbook and the chalkboard. About halfway through the lesson on hunting and fishing, the teacher began drawing a fish on the board (Figure 46). This was not part of her lesson plan. Her drawing is expressive, with lots of details and colors. Her drawing was done without reference to the textbook. As she was drawing her fish, she announced to the students that they did not need to copy her fish. It was just an example (Fieldnotes, March 13, 2012). However, the students know from long experience that if something is on the chalkboard it had better be copied into their notebooks. Therefore, the students started adding fish to their drawings.



Figure 46: A Grade 3 teacher draws a picture of a fish.

For example, as seen in Figure 47, a student started her drawing based on an illustration in the book. Her drawing shows a man standing next to a box of some kind. Then as she was drawing, the teacher began to draw the fish on the board, and so the student began to draw a fish.



Figure 47: A Grade 3 student adds a fish to her drawing.

This example shows the interplay of a range of semiotic modes in the creation of a drawing. This student chose to draw something that she found in the book. It is not possible to know why she chose this scene of a fisherman. Her drawing is imitative but only slightly. The man in the illustration is seated on a rock, holding a fishing rod, and dressed in blue. Her man stands facing the viewer with hands on hips and his outfit is red and green. Although a fish in the scene seems to be a logical addition, like the fish added to the hunting scene in Figure



43, this fish is not part of the originating image in the textbook. Instead, the student, aware of her surroundings, notices that the teacher has added a fish to the chalkboard and so she adds a fish to her notebook. Her drawing is evidence that she is basing her work on multiple sources.

The variability of these examples of student work in comparison with written assignments indicates that drawing allows for greater student expressiveness. While the student writing analyzed in Chapter 5 displayed many examples of variation, there was an expectation that students would copy the entire text from the chalkboard. In these drawings, the students are expected to draw something, but they have more freedom to choose what it is they will draw.

The students seem to engage whole-heartedly with the drawing lesson. This contrasts with writing lessons in which students worked methodically but without enthusiasm. Here the students involved their whole bodies in the assignment, hovering intently over their drawings, looking at the board and their neighbors' drawings, and even getting out of their seat to cross the aisle to borrow a colored pencil or straight edge. In general, they gave off an appearance of absorption in the task at hand. In this context, the creative side of resemiotization is in the fore. The students are engaging playfully and often only tangentially with the stated topic of the lesson. One way in which this is evident is in the exuberant palette of colors used by the students. They seem to use as many colors as possible. In addition to multicolored fish, there are rainbow-colored elephants and rainbow girls (Figure 48). The contrast between this exuberance and their monotonous and often monosyllabic verbal and written responses is quite striking. It points to the latent creativity that is often untapped in the majority of lessons in an L2 classroom.



Figure 48: Grade 3 student drawings of a rainbow 'olitante' and 'epio'.

What are students learning through these drawings which have only a tangential relationship to the natural-science topics being studied in this particular lesson? In these sorts of lessons it seems that the requirement to closely copy the teacher's texts is suspended. The teacher creates an educational space in which exuberant displays are permitted. In that sense, drawing has similarities with the use of *currículo local* (see Section 4.4) during which the teacher-centered pedagogy is suspended, and students are allowed to express themselves in a language and mode in which they are comfortable. McLaren (1999:147–148) in discussing classroom practices of high school students in Canada writes:

[D]uring times of acute distress, teachers would occasionally suspend the rules (e.g. the class would be given a period of 'goof off', engage in a game or read a book). This type of teacher ploy served as a steam valve effect which diffused growing frustrations in the class against assault on their identities.

In this case, the drawing lesson came at the end of the school day after a series of mathematics, science, and Portuguese lessons. The mounting tedium and frustration of the day was able to be released through a pleasant drawing activity. The teacher is stepping away from the default teacher-centered pedagogy and ceding increased control to her students. Thesen (2008:39) writes that in the university lecture ritual there are times when lecturers position themselves on the side of the students, and the ritual 'may be altered or

challenged, resulting in liminal moments when the lecturer's authority is played with or subverted.' This subversion of the rigid authority roles in a normal lesson is possible when the teacher temporarily suspends their authoritative role and engages in childlike acts. In this lesson the teacher did a playful drawing of her own 'as an example'. This created a tension for the students. Was she expecting them to copy her fish? This altering of the ritual causes uncertainty for the students but also allows them greater freedom, similar to those moments when the teacher allows them to speak in their home language. Another example of this playful inversion of classroom authority happened with this same teacher during a lesson on celebrating Day of the Child (Lesson 30) (Fieldnotes, May 8, 2012), when she invited girls to come up and dance in a circle and then joined with them in the dance resulting in outbursts of laughter and cheers by the class.

Whether resemiotization takes the form of drawings or dancing, it results in an embodiment of an idealized subject, such as an elephant, a family feast, or a traditional dance. This is most apparent in non-written lessons such as these involving drawing. However, while writing shows less overt evidence of creativity, mimesis is evident as well to the extent that student writing exhibits considerable variation in the process of imitation. Consideration of the full multimodal event shows that writing practices often serve as a skeleton upon which teachers and students collaboratively create a complex body of meaning. In addition to copying the text, teachers and students are responsively incorporating lecture, dialogue, illustration, song, gesture, and storytelling. The apparent struggles of students in L2 classrooms are balanced by semiotically rich and enriching practices that teachers and students engage in, such as drawing and speaking in the local language. However, these practices are more difficult to assess using traditional assessment methods.

## 6.2 Drawing of design elements

The majority of drawings that did not depict people, animals, and buildings were done in mathematics classes. These included: time (Lesson 22), measuring angles (Lesson 16), and parallel and perpendicular lines (Lesson 28). Writing activities associated with these topics were non-alphabetic and relied on numbers, but they additionally had a strong visual component in the form of mathematical symbols and figures. In some cases, the drawing was in imitation of design elements in the textbook. In the text-chain, the drawing of

mathematical figures is similar to the writing of alphabetic texts. In each case, a model text is presented and the students are expected to copy it as closely as possible. The creative side of mimesis is at a minimum in these cases. While the students have a certain amount of leeway in terms of how they choose to copy the text, it is limited to minor design choices such as pen color and page layout.

Chapter 5 showed that students use design elements like color and line breaks to imitate the design of the written text on the board. Students also recreate other design elements like boxes, brackets, tables, and lines. The use of these design elements is not mere artistic embellishment. The placement of numbers within a table or grid, for example, signifies that position has meaning. Figure 49 shows a grid used for solving multiplication problems (Lesson 1). The difference between digits placed in first, second and third position in a number is highlighted through the grid and use of color. The first place from the right signifies units (U), the second place signifies tens (D), and the third place signifies hundreds (C).



Figure 49: A Grade 3 mathematics lesson showing significance of places in numbers. Left to right: details from textbook, chalkboard, and two students' notebooks.

The teacher copies the design of the grid and even uses similar colors when writing the letters. The first student's grid shows that she was able to complete the exercise correctly. The teacher has marked the answer as correct. The other student did not appear to understand the significance of the grid. Although she copied the grid correctly she was unable to solve the problem.

The teacher uses design elements to draw attention to those parts of the chalkboard text that the students should focus on. For example, in the Grade 3 Portuguese lesson (Lesson

19) discussed earlier (see Section 5.1), the teacher has drawn a line in the places where answers are expected (Figure 50). By the end of the class she has even filled in the correct answers to make sure the students do not miss them.



Figure 50: Detail from Grade 3 Portuguese class, underlining on chalkboard and notebook

The practice of adding lines where answers are expected not only serves the students, but it helps the teacher as well. When the time comes for correction, these drawn elements allow her to quickly find and assess the pertinent parts of the assignment. The use of tables, lines and other design elements shows that writing and drawing are often closely associated in the text-cycle.

### 6.3 Telling time on the chalkboard

This section considers a Grade 5 lesson about telling time on a clock (Lesson 22). The students were asked to draw a clock face and draw in the hour and minute hands based on a time given by the teacher. While this lesson did feature a text to be copied from the board, the focus of the lesson was student work on the chalkboard rather than in their notebooks. This was complicated by the fact that analog clocks featuring hour and minute hands on a round face are largely unknown in Tete. Conventional time-keeping is done primarily using mobile phones which display the time in numerical form. Time-keeping on a traditional clock is also complicated by the use of a 24-hour cycle in Mozambique as opposed to a 12-hour cycle on the clock. A final complication is that the textbook shows clocks with both Arabic and Roman numerals (Figure 51). All these factors make time-

keeping on a clock a potentially difficult task for these students. Whereas normal classroom work requires the copying of a visual model into notebooks, this activity requires students to generate images based on verbal commands associated with fairly abstract concepts. Even the teacher, Anastacia, had a certain amount of difficulty explaining the concept of a clock, three times repeating: *Uma hora tem sessenta segundos*, 'An hour has sixty seconds', before realizing her error and writing on the board: *Um minuto tem sessenta segundos*, 'A minute has sixty seconds' (Fieldnotes, March 15, 2012).

Each point on the clock can represent one of sixty minutes as well as two different hours in the 24-hour clock. With the exception of the first twelve hours of the day, there is not a numerical correspondence between the time and the number displayed on the clock. As a result, depending on what is being signified, the number 4 on the clock, for example, can indicate 4:00AM, 16:00PM, or 20 minutes. When drawing, the hands of the clock must be placed with great precision and even their lengths are significant, with the shorter hand indicating hours and the longer hand indicating minutes.



Figure 51: Grade 5 textbook examples of clocks

Anastacia draws a circle on the board and marks the numbers around the perimeter. As she writes each number she says what it represents in minutes: *um é cinco, dois é dez, três é quinze*, 'one is five, two is ten, three is fifteen.' Then she asks a series of students to come to the board and draw the hour and minute hands on the clock for the times that she calls out. The first boy is asked to draw the hour and minute hands for *doze e vinte e cinco*, 'twelve twenty-five'. He writes in the hour hand without difficulty but is uncertain where to place



the minute hand. Eventually with coaching from the teacher he does succeed in placing it in the right location. After another student proceeds in a similar fashion, Anastacia switches to times after 1PM. This adds the additional complexity of the 24-hour system being imposed on a 12-hour clock face. She calls out the time, saying *dezasseyis e trinta*, 'sixteen thirty'. Several students readily volunteer to write the time on the board but are unable to come up with the correct answer. Three boys come up and try unsuccessfully to write the time, at last settling on 6:15. Finally a fourth boy comes to the board and succeeds in drawing the time hands pointing to the 4 and the 6 which is the correct way to represent the time 16:30 (Figure 52).



Figure 52: Grade 5 students attempt to write 16:30 on an analog clock. Left: 3<sup>rd</sup> attempt. Right: success on 4<sup>th</sup> attempt.

This type of exercise, in which students complete activities on the board, differs from the standard writing ritual. As an exercise, students are expected to produce answers and solve problems rather than simply copy them off the board. The struggles faced by these students are of course not unique to Mozambique. Students all over the world must learn arbitrary semiotic systems like the analog clock. What this particular lesson shows is how, unlike this lesson, the standard writing ritual featuring rote copying is capable of concealing those instances when students do not understand the content of a lesson. Had Anastacia written sample clocks on the board, the students would have been better able to copy those into



their notebooks. An exercise like this one reveals in a very public way the struggles of the students. The students are being asked to engage in resemiotization by listening to the time and then depicting it through a complex combination of writing and drawing. At one point, Anastacia began to repeat the time *dezasseis e trinta*, 'sixteen thirty' (16:30PM), over and over while the students stood at the board trying to figure out what to write. Their difficulties in resemiotizing this information on the board illustrates two salient differences between the affordances of speech and writing. First, writing has a temporal permanence that speaking lacks. Anastacia could have written 16:30 on the board a single time and it would have served as a sign that the students could have referred back to in the process of drawing their clock. For whatever reason, in this lesson she chose to use only speech. However speech is transient. By repeatedly saying '16:30', Anastacia was trying to overcome this so that the students could have time to understand what she was saying and write it correctly on the board. Second, rote copying is not possible when the resemiotization is between the different modes of speech and drawing.

In this particular classroom, Anastacia frequently called on one girl to answer questions, write on the board, and run errands such as finding more chalk. As the clock lesson progressed, more and more students came to the board until there were six students standing at the board unable to write the time correctly. Anastacia then asked this certain girl to come to the board where she quickly wrote the time accompanied by a certain amount of mocking laughter from the students in general directed toward those who were unable to answer the question (Figure 53). Star pupils like this girl play an important role in classroom ritual. As the first ones to respond when the teacher asks for an answer, they provide the safetalk cue (see Section 4.5) that allows the rest of the students to chime in with the appropriate response. Star pupils also show that there is not a simple dichotomy between the teacher and an undifferentiated group of students. Instead, teachers enlist certain students to help the ritual to continue.



*Figure 53: Grade 5 girl succeeds in writing time after six other students fail.*

Another aspect of the classroom ritual that this lesson showed was that a teacher will occasionally single out small groups of students for focused attention at the board while the rest of the students watch passively at their desks. Before calling the star pupil up, Anastacia spoke directly to the small group of students while the rest of the class looked on (Figure 54). This technique allows the teacher to give special attention to a small number of motivated students. The rest of the class benefits by listening in on this 'focus group'. This could in part explain the eagerness of students to come to the board even when they do not know the answer to the question, since by making it to the board they are likely to get more attention from the teacher.



Figure 54: Grade 5 teacher works with small group at the board.

#### 6.4 Schools and houses: drawing the textbook world and the students' world

As noted in the previous chapter, there is not always a clear distinction between writing and drawing. In those cases where students are copying the shapes of letters without knowing what the words mean, they are in effect drawing shapes and imitating elements of the colors and layout on the chalkboard in an effort to make an accurate copy of the text. Drawing also shares characteristics of writing. Drawing, like writing, is an inscriptional activity that involves the making of meaningful marks. Students infuse their drawings with their own style in an effort to communicate particular messages about the world and themselves (Kress 1997:98). It is in the space between simple copying and artistic expression that students are able to shape and personalize their message in a way that is not implied by the idea of copying. Whether a student is drawing or writing, they are engaged in communicating within the framework of the text-chain.

When students draw, they can represent objects which exist in the student's world outside the classroom as well as objects which they might only know about through their textbooks. This is seen in the students' drawings of schools. A drawing of a school is a frequent trope in the corpus of drawings collected during this research. Drawings of schools are found often in notebooks. When two teachers were asked to have their students produce drawings, both teachers asked their students to draw a picture of a school (Lessons 40 and 41).

Most of the drawings contained a large rectangular building with windows and doors which were not dissimilar from Kwadoka Primary (see Figure 56). Students and teachers were also portrayed either inside the classroom or in the space in front of the school. However, the schools represented in these drawings were in many ways different from the school that was experienced by the students in Tete. An almost invariant element of these school drawings was a flagpole with a Mozambican flag flying at the top. Kwadoka Primary had no flag, and when a staff member was asked why, he said that the rope for hoisting the flag kept being stolen. Flags can be found in the textbooks, however. The cover of the Grade 1 Portuguese textbook features a group of students in the foreground and a school in the background (Figure 55). The illustration includes a flagpole mounted on the roof with the Mozambican flag at the top. The flag is similar to the illustration that is shown on the back of every textbook together with the national anthem, emblem, and map.



Figure 55: Grade 1 Portuguese textbook cover and back cover details

Flowerpots were also frequently added to the school drawings. These were depicted on the porch in front of the school or in the yard, and sometimes even on top of the roof (Figure 56). However, actual flowerpots were absent from Kwadoka Primary. Where did these flowerpots come from? They were not portrayed in textbook drawings of schools. One

teacher said that students might see flowerpots at other schools. The closest thing to flowerpots were small enclosures for plants created from branches (Figure 56). While they were not found at this particular school, the students established flowerpots as part of an idealized school landscape. Drawings of schools illustrate that resemiotization is never a one-to-one correspondence between the object and its recontextualization. Sign-makers draw on diverse sources and selectively shape their signs according to the need of the moment (Bezemer & Kress 2008). Such resemiotization is based on an idealized world of the textbook as well as the daily world of the student.

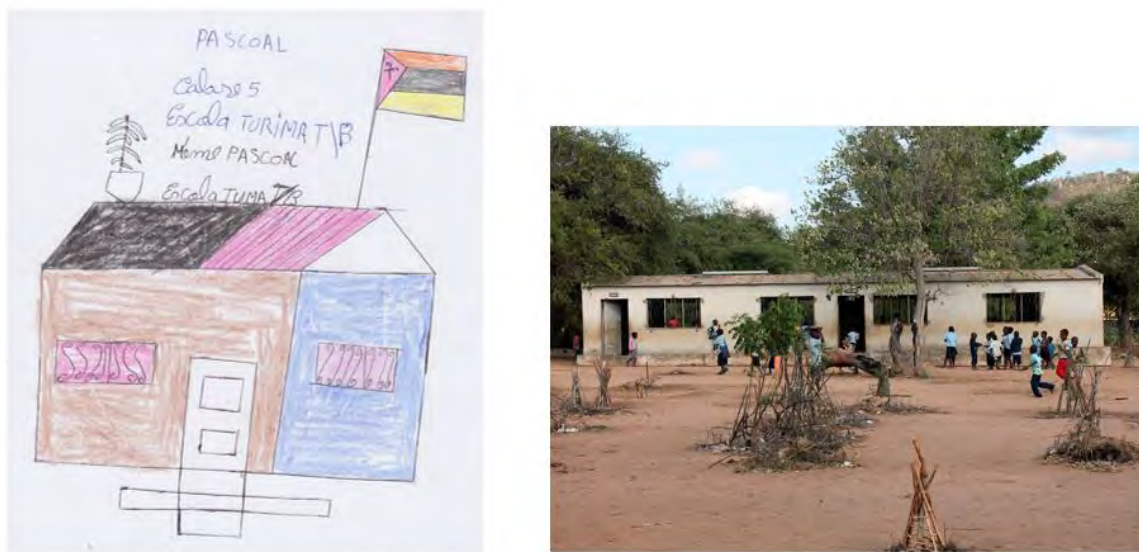


Figure 56: School with flowerpot and flag drawn by Grade 5 student (left) and photo of an actual school building (right)

In a lesson discussing *Dia Da Familia*, 'Family Day' (Lesson 11), students were asked to draw a picture of their family having a feast. In comparison with the fairly square and rectangular appearance of the school drawings, the drawings of families feature more curves and rounded shapes. The drawings feature gatherings of human figures usually with arms extended toward plates on a table covered with food (Figure 57). The drawings have certain similarities to textbook illustrations portraying idealized domestic scenes which have little in common with the traditional living conditions of children attending Kwadoka Primary.



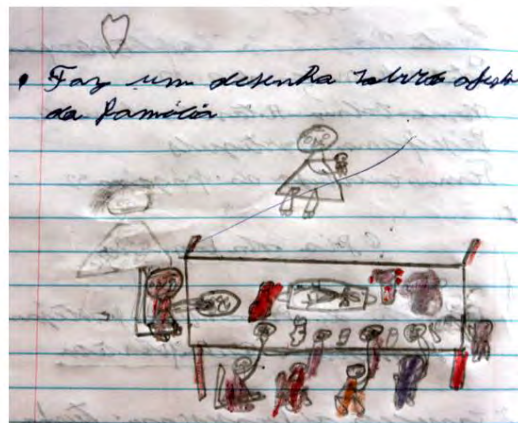
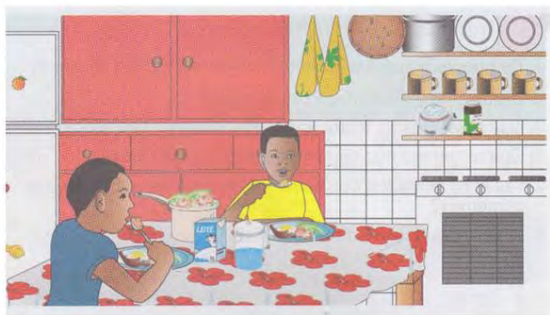


Figure 57: Eating at the table from Grade 1 textbook and Grade 3 drawing. Text reads: Faz um desenho para a festa da família, 'Make a drawing for the family celebration.'

Many of the samples of drawing that were collected seem to depict places and things that are unfamiliar to the experience of a child growing up in rural Mozambique. The drawings, like the textbook illustrations they copy, are idealized depictions of tidy schoolyards and urban homes with food-laden tables. The students' drawings are a sort of 'authorized language' (Bourdieu 1991) in which students respond to teacher expectations with drawings based on depictions in the textbook.

An exception to the idealized drawings of school and home were depictions of family members. When students were tasked with drawing pictures of *minha família*, 'my family' (Lesson 41, 42 and 44), they individualized each drawing in a way that called on real characteristics of their family members. Even in these cases, however, the textbook served as a model for their drawing. For example, in a Grade 3 classroom (Lesson 41) a boy draws a picture of his family based on a page in the book which the teacher suggested as a model (Figure 58). He imitates several elements of the textbook image including the girl with a satchel (A), the running dog (B), and two chickens (C). Then he added other figures representing members of his family. Their height, the presence of a skirt and other details were used by the boy to differentiate the sex and age of different members of his family.

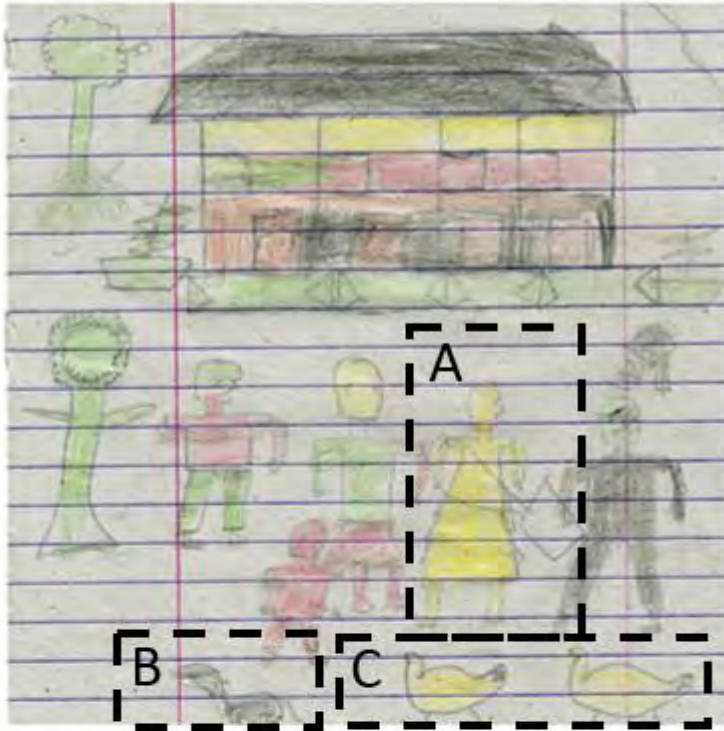


Figure 58: Grade 3 boy incorporates textbook illustration (Bottom) of a girl with a satchel (A), a dog (B), and chickens (C) in a drawing of his family (Top).

Many of the drawings collected during this so-called free drawing exercise feature similar elements from the textbook. By doing this, the students demonstrate 'a capacity to identify



[themselves] or establish similarities with something else while at the same time inventing something original' (Mbembe 2004:376). These drawings are hybrid creations that straddle the divide between the school-world and the world outside the classroom, or what Archer (2006:460) refers to as 'domains of practice'. Students varied in the extent to which their drawings reflected the two domains. In one case a student was seen counting the number of lines on the house in the book in order to imitate them accurately in her drawing. This is despite the fact that the teacher specifically encouraged the students to draw their own house saying: *Se for pau-pique pode desenhá-lo ... se for casa grande também*, 'If it's a pole and daub house you can draw that ... if it's a big house as well' (Fieldnotes, May 16, 2012). Like the fish drawn by the teacher in an earlier lesson, the textbook image speaks louder than the teacher's words, and most drawings in this lesson stick closely to the design of the printed page.

In another Grade 3 class (Lesson 42), the students were given the same assignment to draw their family, but the teacher, Irena, did not have them base their drawings on the book. Instead she emphasized that students needed to write the names of their parents, siblings and grandparents. After giving these instructions, she said to me: *Alguns não vão conseguir*, 'Some won't be able to do it.' Speaking to one student, Irena asked: *Sabe o nome da tua mãe?* 'Do you know your mother's name?' (Fieldnotes, May 17, 2012). Without a visual model, the drawings in this class are more varied groups of individuals (Figure 59), and almost all the drawings include names next to the figures.



Figure 59: Grade 3 students draw pictures of their families.

This section shows the variety of sources that influence classroom drawing practices. The assignment given by the teacher, written and verbal models and instructions, and the material resources of the students result in drawings that, even when based on a printed model, still exhibit considerable variation. In contrast with drawing, writing is more constrained. Because of the students' difficulty with Portuguese, there were no examples of the students writing more than a word or two that had not already been given to them on the board. Teachers eschew textbook exercises like, 'Follow Vitino's example and write your own schedule' (see Section 5.1) in favor of more passive copying exercises. As such, drawing

is a semiotic mode which is liberating for students in terms of creative expression even while it holds a marginalized position in the curriculum in terms of how students are assessed.

### 6.5 Private and transgressive drawing

In addition to drawings that were part of classroom assignments, notebooks show that students engaged in a wide variety of informal drawing practices. These ranged from random scribbles to highly charged images of sexuality and violence. The themes explored in private drawing sometimes surfaced in classroom drawing lessons. One girl used an assignment to 'draw animals for hunting and fishing' (Lesson 20) in order to draw a powerful woman (Figure 60). Some boys in the same lesson focused their drawings on images of men with guns (Figure 45) which overlapped with a frequent theme in their private drawing.



*Figure 60: A Grade 3 girl draws a girl during an assignment to draw animals and fish.*

In their analysis of public signage, Scollon and Scollon (2003) distinguish between situated emplacement, for example a stop sign at an intersection, and transgressive emplacement, such as graffiti on a public wall. Student notebooks show evidence of both situated and

transgressive emplacement. Students have a close relationship with their notebooks. Over the course of the school year, students spend many hours handling their notebooks and creating a personalized record of what they have studied. However, what they write in their notebooks is always subject to the inspection, approval, and correction of the teacher. As such, notebook writing is both private and public. If their private drawings are discovered by the teacher there is little doubt who did them. Transgressive emplacement of drawings should thus be seen as highly motivated signs in which the student's interest in exploring taboo themes overcomes the fear of being exposed. These drawings are also suggestive of issues of importance to the student that are not necessarily addressed in classroom lessons.

In the drawing below (Figure 61), one or more students have drawn a scene depicting physical and sexual violence. The drawing appears to have been done in two stages. First, the drawing in blue ink of the three topmost characters was done. In this drawing, a man with a gun looks on while two other men are engaged in a fight in which they appear to be kicking each other. In the second stage, a new character is added in black ink. Also, genitalia have been added to the three original characters and bullets are depicted flying out of the gun. The new character is grasping the genitals of the man holding the gun and pointing a gun at the second character while kicking him.



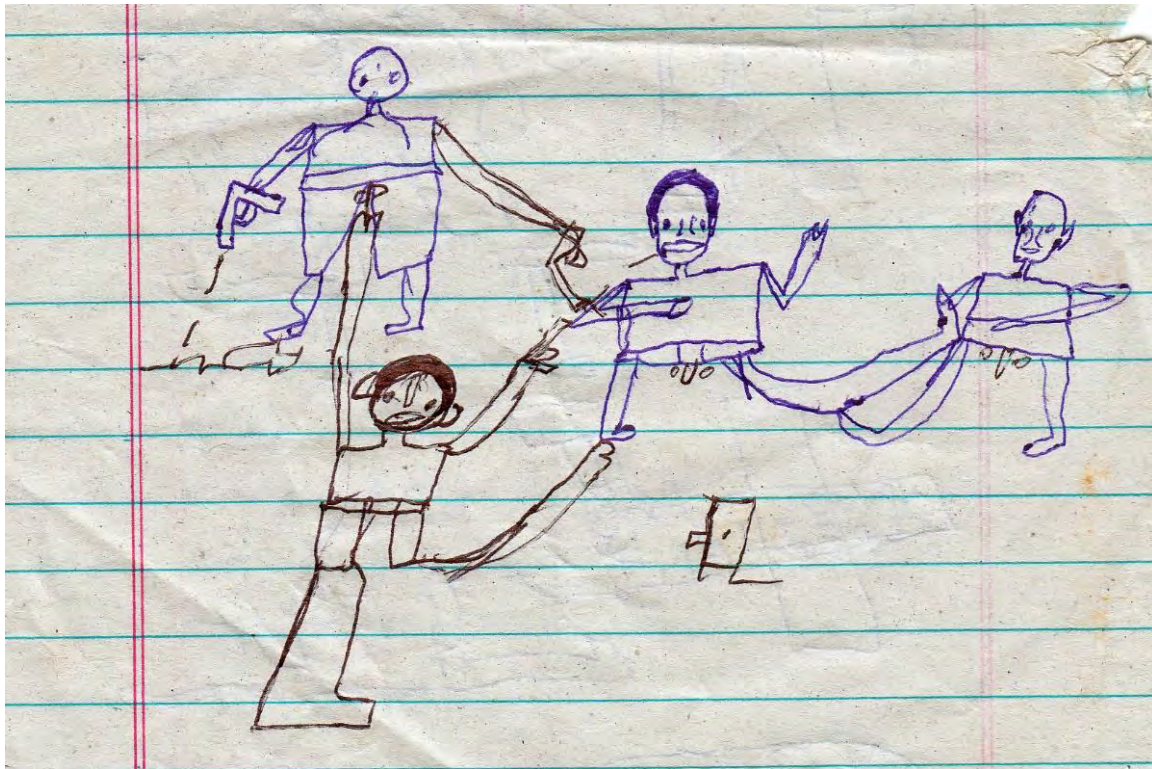
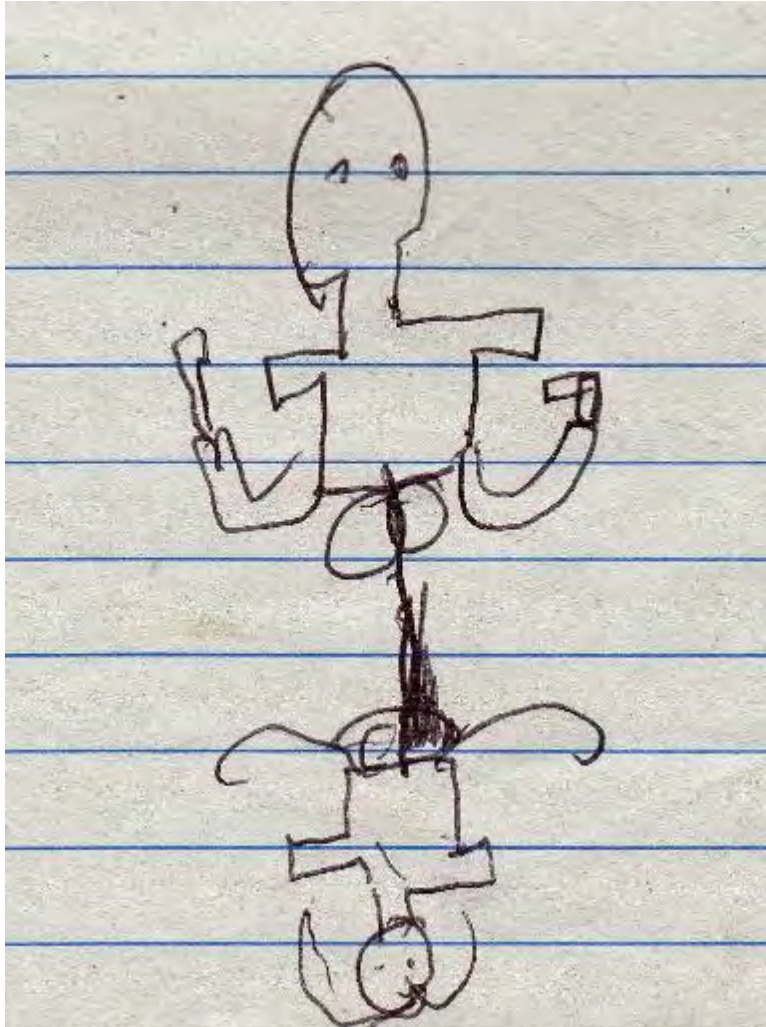


Figure 61: Drawing depicting men fighting

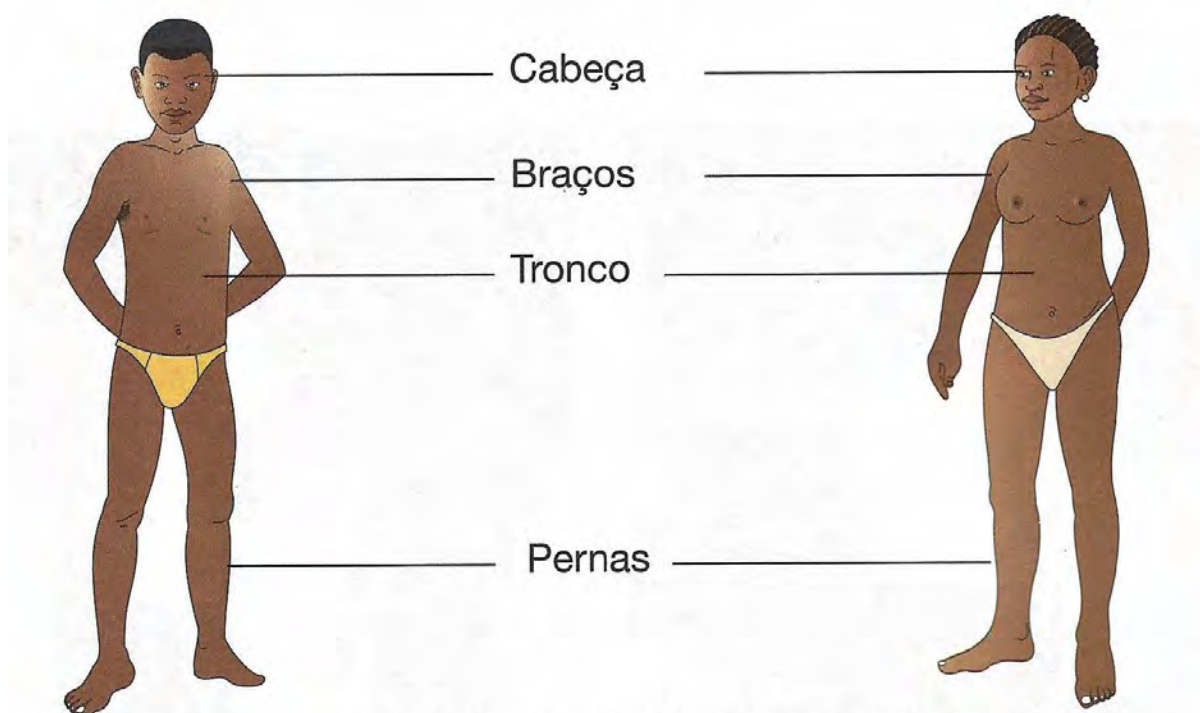
This evocative and disturbing scene shows the kind of subject that was interesting to the student/students who drew it. The absence of female characters could suggest that this was drawn by a boy<sup>20</sup>. With only this single drawing to look at, it is impossible to know what signs preceded it in the semiotic chain. What this image suggests is that the imagination of students at this age can be populated with disturbing images which have little connection with the static drawings which they routinely produce in the classroom. Drawing allows them to relive, process, and potentially diffuse the emotions and fears associated with the original sign. This resemiotization is rooted in the student's world whether that be real or imaginary as in the case of a sexually-themed drawing by a Grade 3 boy (Figure 62). In this drawing a man and woman are depicted engaged in sexual intercourse. The relative positions of the two people and the exaggerated size of the male genitals are indicative of the boy's understanding and 'interest' (Kress 2010:70) in this subject. The lack of facial

<sup>20</sup> The notebook page containing this drawing was discovered in the schoolyard and so it was not possible to tell who did the drawing. The other drawings in this section were taken from students' notebooks.

features and hands, the awkward position of the legs and the lack of textual labels shows that the sexual act is in focus rather than the identity of the people. This contrasts strongly with textbook depictions of the human body which conceal genitals but give detailed depictions of the rest of the body. For example, a Grade 4 Natural Science textbook conceals the parts of the body that the boy is drawing attention to (Figure 63).



*Figure 62: Grade 3 boy's sexually-themed drawing*



**Fig. 2** O nosso corpo divide-se em cabeça, tronco e membros (braços e pernas).

*Figure 63: Detail from Grade 4 Natural Science textbook depicting the human body*

If an essential component of education is connecting new knowledge with prior knowledge through assimilation and accommodation (Piaget 2013), then the very different mimetic acts invoked by formal and informal drawing point to a disconnect in the learning experience of Mozambican students. The formal drawing lessons in the classroom display a sort of ‘mimesis of the unreal’, evoking an idealized world of perfect schools with flowerpots and flying flags and luxurious houses inhabited by people in modest clothing. Such a world is in some way aspirational, showing the kind of world that the student might someday inhabit should he or she succeed in deciphering the Portuguese language and mastering unfamiliar semiotic systems like spinning clocks and Roman numerals. The text-chain is to an extent a closed loop of knowledge that proceeds independently of the real world where it might build on existing knowledge and potentially modify that knowledge through accommodation of new concepts. Drawing provides a visual way to see how existing knowledge and new knowledge exist in separate spheres with little overlap.



## 6.6 Conclusion

This chapter has shown classroom drawing practices as a special type of resemiotization in which creativity is in the foreground. Drawing occupies a similar place to writing in the text-chain. In both cases an inscription on the chalkboard is copied into student notebooks. However, the more rigid requirements of copying seen in writing lessons are relaxed during drawing lessons. Teachers and students engage in more playful and artful expressiveness. This is due partly to the absence of Portuguese in these lessons. Drawing allows students to say things freely through pictures in much the same way that using their home language allows them a greater degree of expressiveness (Stein 2008). Drawing also seems to play a role in relieving stress and tedium brought about by restrictive classroom ritual (McLaren 1999). The clock drawing exercise and other aspects of mathematical drawing reveal that succeeding in the classroom goes beyond simply mastering letters and numbers. Instead there are a range of complex semiotic systems such as telling time that students must learn. In most cases, these types of drawing are more concerned with accurate representation rather than creative expression. Drawings of schools and homes show that resemiotization often involves the imitation of an object which resides in an unfamiliar school-world. This results in a disassociation between the idealized world depicted in textbooks and the world inhabited by the student (Archer 2006), whether that be real or imaginary. The taboo subjects which students address when they engage in private drawing are further evidence of the expressive potential of drawing as well as the disparity between the world as depicted in their textbooks and the concerns and interests of the students.

## 7 Case study: Balancing the text-chain with helping students understand the lesson

The previous chapters analyzed writing practices in the Mozambican classroom and their organization into a text-chain. The text-chain ritual was shown to be simultaneously reductive and expansive: reductive in the sense that successive links in the text-chain normally contained less information than those on which they were based, and expansive in that these links frequently served as the basis for expansive multimodal ensembles of meaning. Additionally, resemiotization in the classroom was shown to be mimetic, displaying imitation and creativity in varying degrees. In this chapter, the focus will shift from looking at different characteristics of the text-chain to how one teacher in particular engages in practices that supplement rote copying and address comprehension difficulties brought about by the use of a language of instruction which is unfamiliar to most of the students.

In the following examples, the chalkboard continues to serve as a central site of display for organizing the classroom lesson, but this Grade 5 teacher, Anastacia, frequently departs from the standard text-chain. This chapter argues that her emphasis on student comprehension causes her to 'break' the text-chain by using three interrelated strategies: the use of the students' home language; references to the students' world outside the classroom; and communicating through modes other than writing. These practices scaffold (Sharpe 2006) the written text-chain while also decentering it in her lessons. Furthermore, these practices are in keeping with data collected during an interview with Anastacia in which she reflects on her own education and that of her students and emphasizes the importance of teachers explaining unfamiliar vocabulary to their students. Before discussing Anastacia's classroom practices, this chapter will investigate her reflections on pedagogy, as expressed in the interview.

Anastacia was born and raised in Tete. In 2009, she studied at a private teacher training college in Maputo before returning to teach at Kwadoka Primary. Outside the classroom, she is a confident speaker of Nyungwe and Portuguese, frequently taking center stage during break-time conversations with other teachers. At one point in her interview she talks

about why she became a teacher, saying, 'Teaching was my choice, my gift. I saw the teacher in the classroom explaining, giving instruction, and I wanted to be like her' (Interview Extract 1, Anastacia, May 15, 2012)<sup>21</sup>. Anastacia sometimes exhibits frustration and weariness as she controls a classroom of more than fifty students. Her interactions with the students are at times characterized by a stern expression on her face and abrupt commands. Her serious demeanor, however, is accompanied by evidence that she is a capable educator: her lesson plans are thorough, and she moves her students through the lessons with easy authority.

When interviewed, Anastacia emphasizes the importance of students learning Portuguese for success in school, but she also believes that it is the teacher's responsibility to explain unfamiliar concepts in the students' home language. According to her, teachers should explain lessons in the students' language so that when they get home they can get help from family members with their homework:

When [the child] goes home, for example, [he] arrives at home and the parents are responsible for the lesson, right? And that which the child studied at school. I [as the parent] ask, 'What did you study today?' [The child says,] 'Ah, I didn't understand, I didn't hear what the teacher was saying.' What is [the child] speaking? His local language. 'I didn't understand anything, what am I going to do in school if I don't understand anything, if the teacher only speaks Portuguese ... she doesn't even translate in dialect, she doesn't use two languages so I can at least understand some things' (Interview Extract 2, Anastacia, May 15, 2012).<sup>22</sup>

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<sup>21</sup> Portuguese transcription: *Para ser professora foi a minha escolha ... o meu dono ... eu vi na sala de aulas a professora a explicar, a dar aulas e queria ser como ela.*

<sup>22</sup> Portuguese transcription: *Então quando você vai para casa, exemplo, chega em casa e tem pais que controla a lição, não é, daquilo que o filho estudou na escola, pergunto 'o que é que vocês estudaram hoje?' [A criança diz,] 'Ah, eu nem me apercebi, eu nem ouvi o que a professora estava a dizer.' Já está a falar o quê? A sua língua local. 'Eu nem ouvi nada, o que é que eu vou fazer na escola se eu não estou a ouvir nada, se a professora só fala português, ... nem costuma traduzir em modo dialeto, não usa bilingue para eu pelo menos perceber outras coisas.'*

In this part of the interview, she verbalizes, in the voice of a student<sup>23</sup>, the frustration she believes the student experiences when the teacher doesn't explain the lesson in a language the student can understand. Anastacia recognizes the home as a key site for learning. However, if the student does not understand the lesson, he won't be able to get help from family members:

To get help, he needs to know what it is they studied in school. Now, he explains to the mother or father or even the siblings that 'we studied this, now, I don't understand this part. O my brother, help me with this work that the teacher gave and tomorrow the teacher right away in the first class is going to correct this work' (Interview Extract 3, Anastacia, May 15, 2012).<sup>24</sup>

According to Anastacia, the student's success in the classroom depends on several factors: the teacher needs to explain the assignment in a way that the student can understand, the student must do his homework, and family members can help the student with parts he does not understand. In another part of the interview, Anastacia describes her own experience as a young student. She says that when she was a student, school was very strict and that students could be expelled from the classroom for not having their homework complete. She depended on her family to help her with Portuguese. With her own son, she insists that he does his homework while she watches. He can't go out to play until all his homework is completed (Interview Data, Anastacia, May 15, 2012). Her experience as a student and later as a parent has impacted how she perceives her roles as a teacher. Anastacia recognizes Portuguese as an essential key to students' advancement in school:

So in Grade 4, I have to force the students. They should be in the same language, that is Portuguese, because it's already an advanced level because very soon they go to fifth, then sixth, then second form, it's high

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<sup>23</sup> The Portuguese personal pronouns do not specify whether the teacher and student are male or female. In the English translation, I designate the teacher as female and the student as male for the sake of convenience in distinguishing between who is speaking.

<sup>24</sup> Portuguese transcription: *Para receber ajuda, eles têm de saber o que é que eles estudaram na escola. Então, explica à mãe ou ao pai ou mesmo aos irmãos que nós estudamos isso, então eu não estou a entender essa parte. O meu irmão ajuda-me no trabalho que o professor deu e amanhã o professor e logo na primeira aula vai ser a correção desse trabalho.*

school, right? Then, if the child still is going to continue in a bilingual school, keeps growing as a bilingual, he won't understand anything (Interview Extract 4, Anastacia, May 15, 2012).<sup>25</sup>

By 'keeps growing as a bilingual' she here imagines a case in which students don't make a transition out of their home language as the language of instruction, which would then set them up for difficulties when they get to the high school level where all instruction is in Portuguese. The uncertain status of the students' home language is reflected in the shifting vocabulary that Anastacia uses to refer to it including *bilingue*, 'bilingual', *língua local*, 'local language', *língua oficial*, 'official language', and *dialect*, 'dialect' (see examples in Interview Extract 5 below). She believes that especially in the early grades, teachers must bridge the gap between the student's home language and the language of instruction:

I have to translate in the official language of the child. I have to use bilingual, for example, this is a drum, in dialect it is what? Ng'oma. Yes. Now the child when he goes home if I am going to give homework, he is going to tell his brothers and even his parents, saying 'the teacher taught me that this here is a drum, but in our local language it is an ng'oma' (Interview Extract 5, Anastacia, May 15, 2012).<sup>26</sup>

In Anastacia's view, the home language helps the student to make the connection between existing knowledge and Portuguese, which serves as the key to future educational attainment. This explains why Anastacia emphasizes both the home language and Portuguese. The two languages serve as links between the world of the student and the world of educational mobility. In the example of the drum, the teacher provides the students with vocabulary for describing their world in Portuguese, while at the same time drawing on existing knowledge. Anastacia is engaging in what educational scholars refer to as 'scaffolding' (Sharpe 2006), that is, enabling a student 'to solve a problem, carry out a

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<sup>25</sup> Portuguese transcription: *Assim a 4ª classe já aí tenho que esforçar, todos alunos devem se encontrar na mesma língua que é a língua portuguesa porque já está numa classe avançada. Porque daqui a nada vai para a 5ª, depois da 5ª vai para a 6ª, já é B2, uma escola secundária não é? Então, se a criança ainda vai continuar numa escola bilingue vai crescendo com o bilingue, já não vai entender nada.*

<sup>26</sup> Portuguese transcription: *Tenho que traduzir em língua oficial da criança. Tenho de usar a bilingue, por exemplo, isso é batuque, em dialeto é o quê? Ng'oma. Sim. Então, a criança quando vai para casa, se eu vou dar trabalho para casa vai já informar os irmãos ou mesmo os pais, dizer que a professora ensinou-me que isso aqui é batuque, mas na nossa língua local, é ng'oma.*

task or achieve a goal which would be beyond his unassisted efforts' (Wood, Bruner & Ross 1976:90).

During the interview, Anastacia emphasized the importance of both the home language and Portuguese for education. However, she did not elaborate on the use of other modes of instruction besides writing and speaking. These are nevertheless an important part of her pedagogy as will be seen in this chapter. At one point she does mention the use of *realia* when talking about the drum example:

Then, the child when he goes home, if I give homework, then, you at home need to find a can and a plastic bag and you're going to make a drum for here at home to bring as didactic material (Interview Extract 6, Anastacia, May 15, 2012).<sup>27</sup>

Her methods are suggestive of a teaching philosophy in the L2 classroom that seeks to not only scaffold new vocabulary through translation but to anchor learning in concepts and experiences found outside the classroom.

### 7.1 Problematizing the text-chain in a lesson on flooding

The first lesson is a natural science lesson about flooding (Lesson 23). This lesson is in many ways a typical text-chain similar to several of the others examined in earlier chapters. The chain begins with a small portion of text in the textbook which the teacher copies into her lesson plan. A text is then copied onto the chalkboard and the students are required to copy it into their notebooks. The textual resemiotizations are accompanied by other resemiotizations in which meaning crosses modal boundaries to be expressed through speech and gesture (Newfield 2009:78). Additionally, there is translation work involved. The original Portuguese text is resemiotized as Nyungwe speech or as a combination of Nyungwe and Portuguese speech (Table 10).

While this text-chain has all the standard elements, the resemiotization is multiple since there is not a simple linear progression of resemiotizations as might be suggested by the term 'text-chain'. Instead, in the process of moving along the text-chain, Anastacia calls on a

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<sup>27</sup> Portuguese transcription: *Então, a criança quando vai para casa, se eu vou dar trabalho para casa, então, vocês em casa vão arranjar uma lata e ... um plástico e vão fazer um batoque para aqui em casa trazer como material didático.*

variety of semiotic resources in addition to moving freely between Portuguese and Nyungwe.

*Table 10: List of resemiotizations in a classroom lesson*

#	Time	Description	Principal Mode
1	Pre-lesson	Teacher copies Text 1 from the textbook into her lesson plan.	writing
2	10:15	Teacher writes the discipline and theme on the board.	writing
3	10:20	Teacher lectures in Portuguese and Nyungwe on causes of flooding.	speech
4	10:22	Teacher points out window to waterhole near school and describes flooding in Portuguese and Nyungwe.	gesture and speech
5	10:25	Teacher puts textbook on desk in front row and begins reading Text 2	reading
6	10:26	Walks to the chalkboard and begins copying Text 2 from textbook	writing
7	10:30	Teacher points out window to waterhole again and describes presence of mosquitos in Nyungwe and Portuguese	gesture and speech
8	10:39	Teacher finishes writing	writing
9	10:26-10:55	Students copy chalkboard text into their notebooks	writing
10	10:40-10:55	Teacher occasionally reads from the textbook while seated at her desk	reading
11	11:02	Student erases the chalkboard	erasing

While the table lists the principal modes being used during each stage of the lesson, it needs to be emphasized that there was not always a neat division between each part, and also that any mode was usually accompanied by others. For example, lecture was a multimodal ensemble including speech, gesture, tone of voice and movement (Thesen 2008:39).

The structure and use of the lesson plan were discussed in Section 5.1. Prior to this lesson, Anastacia selected a single heading and sentence from the textbook to write in her lesson plan (Figure 64, Table 10, item 1). The text reads:

‘Flooding’

‘When it rains hard, the soil and the trees are unable to absorb all the water.’



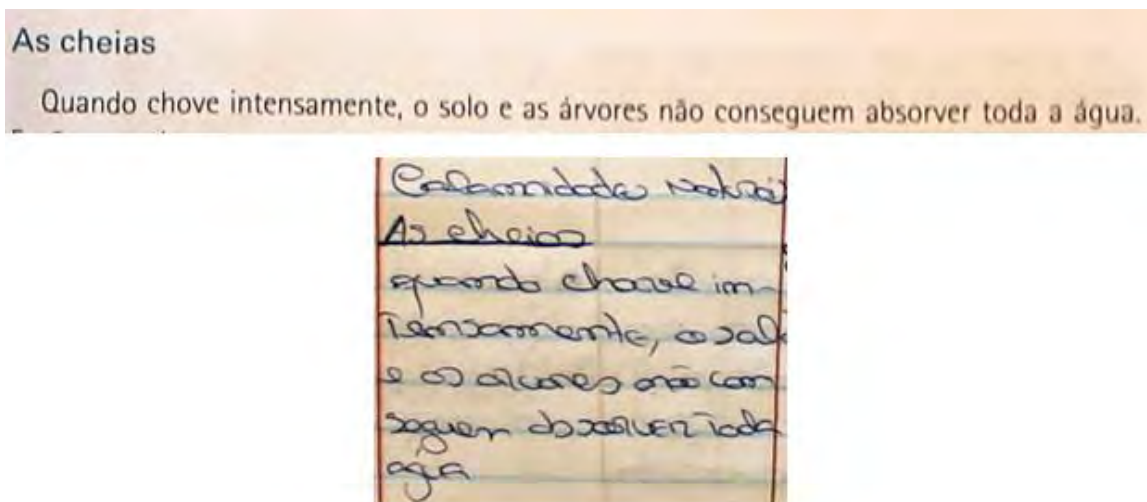


Figure 64: Text 1 on flooding in textbook and lesson plan

The lesson plan contains only a small space to write the text for that day. In this case, although the textbook contains quite a bit of text and two photos, Anastacia writes only a single sentence. As was mentioned in Section 5.1, the lesson plan is a writing ritual performed in part for the assistant director. In much the same way that notebook writing serves as evidence that learning is happening, the lesson plan is an example of ‘procedures used to maintain continuity’ (Bernstein, Elvin & Peters 1966:429) that show that teaching is going on. The text that Anastacia writes in the lesson plan is not the one that she uses in her lesson, which suggests that the lesson plan is largely a symbolic ritual giving evidence that the teacher has done her required preparation. This does not mean that the lesson plan is not used by the teacher during the lesson, only that there is not always a direct link between the lesson plan and later parts of the text-chain.

#### 7.1.1 Lecturing on flooding





At the beginning of the lesson, Anastacia walks to the area in front of the student desks and begins to walk back and forth lecturing on the lesson’s theme (Table 10, item 3). Using a mixture of Portuguese and Nyungwe, she explains the process of flooding and what happens to the soil and rivers (Fieldnotes, March 15, 2012). She gazes at the students as she walks in front of the classroom. Periodically she asks for confirmation from the students by saying: *Sim?* ‘Yes?’ or *Não é?* ‘Isn’t that so?’ The students respond with: *Sim!* ‘Yes!’ This type of lecture was common during the *introdução e motivação*, ‘introduction and motivation’

section of a lesson (see also Section 4.4) serving as a monologic discourse (Bakhtin 1993:81) in which students were mostly silent listeners. Anastacia also makes use of the *currículo local* technique (see Section 4.4) by tying the topic of the lesson to local concepts. In this case, Anastacia refers several times to the waterhole which was visible outside the classroom window. She points to the waterhole and describes what happens when there is flooding and the creek and waterhole fill with water (Table 10, item 4).

#### 7.1.2 Using gestures to scaffold meaning

As she lectures, Anastacia gestures frequently. Various systems have been devised for classifying gestures (Kendon 2004:84–107). Gesture can be placed on a continuum (McNeill 1992:37–40) with idiosyncratic and spontaneous movements of the hands, for example, on one end and formal symbolic systems like emblematic gestures (such as the thumbs-up gesture mentioned in Chapter 2) and full-fledged sign language (Tellier 2009:192) on the other. The gestures used by Anastacia are on the spontaneous end of the continuum, including: representational gestures that depict the action or object being described; deictic gestures, that is pointing, usually with the hand; and discursive gestures, involving movement of the hands and arms to punctuate speech (Colletta et al. 2009; Krauss, Chen & Gottesman 2000:262–263). A small sample of the gestures used during this lecture is catalogued in Table 11.

Table 11: Four gestures Anastacia used while talking about flooding

#	Gesture	Type	Description	Accompanying speech
1		discursive	Upturned hand bobbing up and down with fingers bent.	Various. Punctuating her speech.
2		representational	Hands bobbing together with fingers bent.	<i>madzi</i> (Nyungwe), 'water' ... referring to water gathering in ground after heavy rain.
3		representational	Flat vertical hand starting near chest and pushing away until arm extended.	<i>escorrega para mais baixo</i> , 'it flows downward' ... referring to water running off after rain.
4		deictic	Pointing hand, palm down.	<i>aqui</i> , 'here' ... pointing to the waterhole outside the window.

These gestures and speech together resemiotize the textbook text. Each of these multimodal ensembles corresponds to information from the text which Anastacia is simultaneously translating into a combination of Portuguese and Nyungwe:

English translation of textbook with numbers referencing the gestures in Table 11:

‘When it rains hard, the soil and the trees are unable to [absorb all the water.’ 2]

‘Then this water [runs through the ditches and canals to lower areas.’ 3]

‘And finally, it arrives [in the rivers.’ 4]

Anastacia scaffolds the meaning of the textbook text through her use of gestures. These gestures are mediated (Jaworski & Thurlow 2009:253) by her speech and together they explicate the original written text (Wulf 2013). Anastacia not only uses Nyungwe and gestures to assist the students in understanding the lesson, she also uses local geographical features, in this case a nearby waterhole, to deliver her message. This is an instance of the sort of spontaneous *currículo local* mentioned by the assistant director (see Section 2.1.2). By talking about and pointing at the waterhole, Anastacia is placing the textbook lesson into the local context.

### 7.1.3 Reading as mediational resemiotization

After lecturing on the topic, Anastacia puts her book on a desk at the front of the class and begins reading the text aloud (Table 10, item 5). Reading is another example of resemiotization. The text is the same but the mode is reading instead of writing. The reading that Anastacia engages in during this part of the lesson is meant to be scaffolded by the previous lecturing activity. However, her body posture in the two sections is different and shows that she is aware of the varying levels of comprehension possessed by the students. During her lecture, she moves back and forth in front of the students, directing her gaze at numerous students as she punctuates her Nyungwe and Portuguese speech with gestures. When she is reading though, she stops moving and stands in the center of the classroom, reading the book while looking repeatedly at one girl sitting in the back of the classroom. This student is the one who was mentioned in the previous chapter (see Section 6.3) as a star pupil who has better Portuguese skills than her peers have and is frequently called on to

answer questions. The one time that she turns away from the star pupil is when a boy on the other side of the classroom is making noise. She throws a piece of chalk at him and scolds him for not paying attention (Fieldnotes, March 15, 2012). Although the lecturing and reading activities are done in the presence of the whole class, the contrast between, on one hand, lecturing to the whole class in Nyungwe and Portuguese accompanied by gestures and, on the other hand, reading in Portuguese while glancing at a single student shows that Anastacia is aware of the meaning potential of different semiotic resources and directs them to her students accordingly. By reading to the class, she fulfills the requirements of that particular lesson. However, by directing the reading toward one student she shows that she realizes the text is not meaningful to most of the students. After reading several sentences from the book, she turns to the board and begins copying a text from the textbook (Table 10, item 6).

#### 7.1.4 Adapting the text-chain on the chalkboard

The text that Anastacia writes on the board (Figure 65) is different from what she wrote in the lesson plan (Table 10, item 1). She copies a list of phrases describing problems resulting from flooding which is found at the bottom of the textbook page (Figure 66).

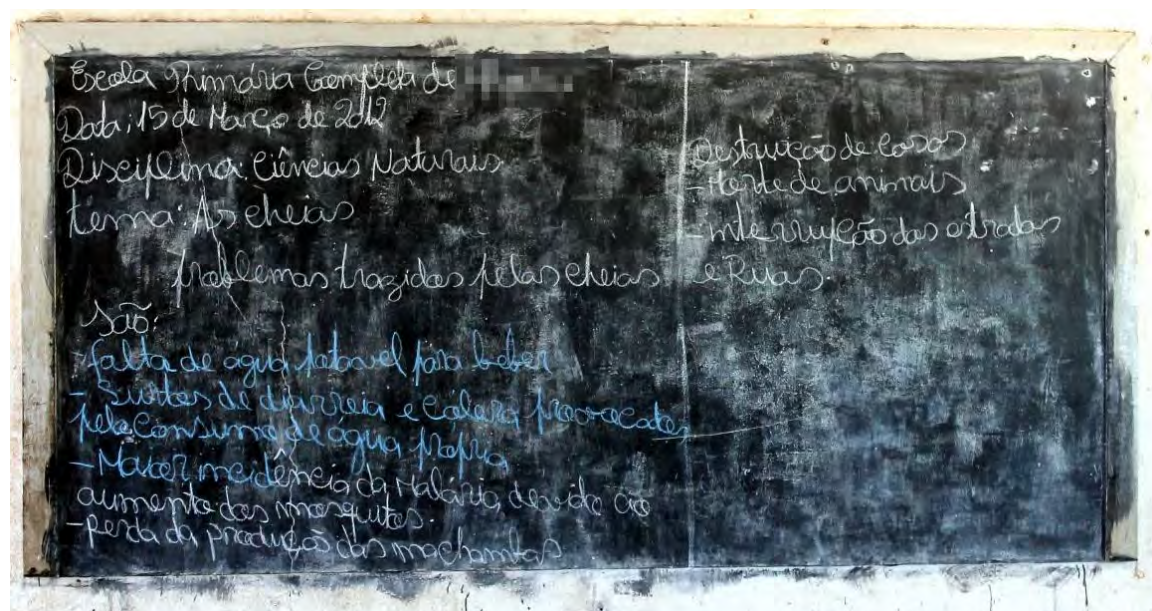


Figure 65: Chalkboard text about flooding



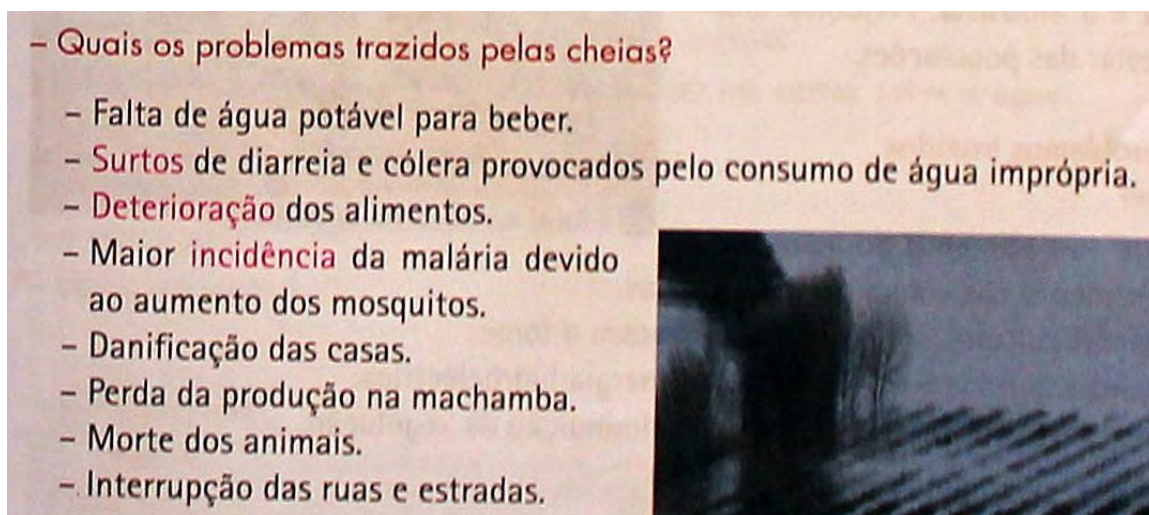


Figure 66: Detail from textbook lesson on flooding

In copying this text onto the chalkboard she introduces a number of changes: omitting line 4, swapping the order of lines 6 and 7, and making several changes to the wording (Table 12). In addition to these textual changes, she also organizes the one column text in the textbook as a two-column design on the chalkboard. She begins writing the list in blue chalk and then switches to white chalk halfway through the word *incidência*, ‘incidence’ (Fieldnotes, March 15, 2012). As was noted in an earlier chapter, blue is the most difficult color to see on the chalkboard (see Section 4.3). In this case, the switch to white chalk does result in a much more legible text.

At this stage in the lesson, Anastacia resumes the written part of the text-chain. When she starts writing on the chalkboard, the students begin copying into their notebooks. While the previous activities involved a focus on the meaning of the lesson with Anastacia engaging in various techniques to help the students understand the topic of the lesson, now the focus is on rote copying. Even so, the various changes and omissions that Anastacia makes to the text in the process of copying it onto the board show that she has leeway for creativity in choosing what she will write on the board. During her lecture, she did not refer to deterioration of food (Table 12, item 4) which perhaps explains why she omits that line from the chalkboard text. The result is that the resemiotization onto the chalkboard is based on both the textbook and her lecture. As was mentioned in Section 5.1, the links in the text-

chain are dialogic (Haworth 1999) and do not always involve a single originating text. Instead, the teacher is actively responsive to her environment and the students as she creates a text on the board. Therefore, the changes found in a chalkboard text like this one are not evidence of errors in transmission but rather the mimetic nature of resemiotization in which imitation and creativity coexist.

Table 12: Text 2 on flooding as written on the chalkboard

#	Portuguese Transcription (see key below)	English Translation
1	- <u>Quais os</u> problemas trazidos pelas cheias?	<u>What</u> problems are caused by flooding?
2	- Falta de água potável para beber.	Lack of potable water to drink.
3	- Surtos de diarreia e cólera provocados pelo consumo de água <u>imprópria</u> .	Increase in diarrhea and cholera caused by consumption of <u>improper</u> water.
4	- <u>Deterioração dos alimentos</u> .	<u>Deterioration of food</u> .
5	- Maior incidência da malária devido ao aumento dos mosquitos.	Higher incidence of malaria due to the increase in mosquitos.
6	- <u>Danificação das casas</u> . (Destruição de)	<u>Damage to</u> houses. (Destruction of)
7	- Perda da produção <u>na machamba</u> . (das machambas)	Loss of production <u>in the field</u> . (of the fields)
8	- Morte <u>dos</u> (de) animais.	Death <u>of</u> (of) <sup>28</sup> animals.
9	- Interrupção das <u>ruas e estradas</u> (estradas e ruas).	Interruption of <u>roads and streets</u> . (streets and roads)

Key: Underline = Omitted text (Parentheses) = Substituted text

#### 7.1.5 Increasing dialogism through the home language

After writing the text on the chalkboard, Anastacia begins to discuss the topic in a mixture of Portuguese and Nyungwe (Table 10, item 7). She focuses in particular on the line describing malaria and again points to the waterhole and describes the increase in *mbudu* (Nyungwe), ‘mosquitoes’ resulting in malaria. This is further evidence of Anastacia’s concern with meaning. Although Anastacia is highly engaged in embodying the textbook text and connecting it to the students’ world through language and gestures as well as pointing to objects in the world outside the classroom, her teaching method is mostly monologic (see

<sup>28</sup> The forms of ‘of’ in Portuguese are plural and singular, respectively.



Section 5.1). She positions herself as ‘someone who knows and possesses the truth’ (Bakhtin 1993:81). While Anastacia often invokes the students’ world, she seldom makes space for the students themselves to dialogically participate in the lessons and thereby ‘promote communication through authentic exchanges’ (Lyle 2008:225).

In an interview with the assistant director, he stated that the use of the students’ home language creates the potential for debate and exchange of ideas:

Now, since [the child] is familiar with the local language it is possible to communicate that which he knows. Now that the teaching is a teaching of debate, it is a teaching of an exchange of experiences. It’s not like before when the teacher showed up in the front of the students and just stood there talking and talking and talking (Interview Extract, Estevão, March 16, 2012).<sup>29</sup>

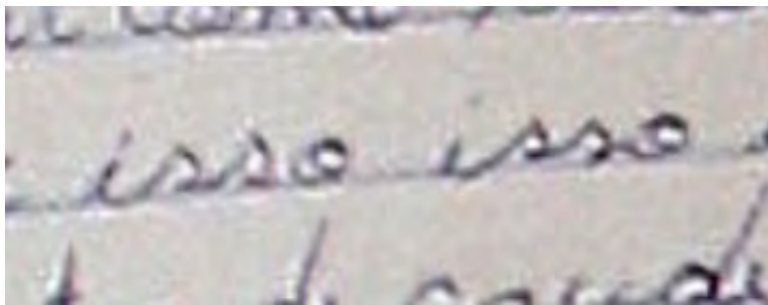
Although Anastacia’s teaching methods are student-focused, her lessons show little evidence of debate or the exchange of experiences. Aside from one-word safetalk utterances like *Sim!* ‘Yes!’ and *Não!* ‘No!’, the students are mostly silent in the classroom. The one example of a student speaking in the lesson, as was mentioned previously, results in Anastacia throwing a piece of chalk at the student and scolding him for being disruptive. This is partly just pragmatic. One teacher needs to control more than fifty students, first by making sure they are not making noise and disrupting the class, and second, by keeping the lesson moving during the brief time allotted.

As soon as the teacher begins to write on the chalkboard, many of the students start writing in their notebooks (Table 10, item 9). The six students selected by the teacher for observation all produce a legible text in their notebooks which mimics the content of the chalkboard text. However, they do not copy the colors or layout on the chalkboard. There is no evidence of pseudo-writing but only one of the students copies the complete text off the board. Two main factors contribute to the students’ ability to complete the writing ritual. First, these are Grade 5 student so they are older than the Grade 3 students whose writing was analyzed in Chapter 5 (Lesson 14). Second, these students were hand-picked by

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<sup>29</sup> Portuguese transcription: *Então, quando ele é familiarizado já com a língua local, é possível transmitir aquilo que ele sabe. Já que o ensino agora é um ensino de debate, é um ensino de troca de experiências. Não é como dantes que o professor chegava na frente dos alunos e só ficava a falar, falar, falar.*

Anastacia to be observed since she considered them to be good students. The fact that the students produce legible texts with few orthographic and spacing difficulties and that they do not mimic the color or design of the chalkboard text suggests that they are interacting with the text as words rather than just shapes, as was the case in the Grade 3 classroom. In Chapter 5, it was claimed that the teacher was dealing with the text in chunks of one or two words while the students were only able to write one or two letters before looking at the board again (see Section 5.3). In this classroom, the fact that the teacher is rewording a number of the sentences in the text suggests that she is interacting with the text on a sentence level. Regarding the students' writing, the lack of spaces in words points to the possibility that these students are interacting with the text on a word level. Further evidence for this comes from another lesson in this class (Lesson 21) in which a student accidentally wrote a word twice (Figure 67) suggesting that she was concentrating on one word at a time and did not notice when she repeated a word.



*Figure 67: Repetition of the word 'isso', 'this', suggesting that student is copying from the chalkboard on a word-by-word basis*

The students interact with the various stages of the text-chain in different ways. According to fieldnotes (March 15, 2012) taken during this session, each of the students was doing something different. One student, for example, is copying the textbook into her notebook. Another is copying the chalkboard text into her notebook. Another student is focused on the textbook while other students are focused on the teacher. The students vary in the way they interact with the multiple signs created by the teacher. This does not mean that the various signs are of equal importance in this Mozambican school. Writing is still the central act of resemiotization. Even though most of the students seem to understand Nyungwe best, the classroom ritual requires them to write and speak in Portuguese. As such the

Portuguese writing ritual exists in tension with the sorts of verbal activities that allow for the use of Nyungwe and which are more meaning-focused.

While the students are writing in their notebooks, Anastacia, who is seated at her desk near the chalkboard, occasionally reads to them from the textbook (Table 10, item 10). The remaining minutes of the lesson are spent by the students copying into their notebooks. As time approaches for the lesson to end, Anastacia begins asking if the students have finished:

Anastacia: *Já acabaram?* 'Have you finished?'

Students: *Não!* 'No!' [A few answer in the affirmative.]

After several minutes, Anastacia asks again:

Anastacia: *Já acabaram?* 'Have you finished?'

Students: *Sim!* 'Yes!' [A few answer in the negative.]

The school bell rings, and Anastacia leaves the room while those students who have not finished continue to write. A few minutes before the next lesson resumes, one of the students goes to the board and erases the text (Table 10, item 11).

#### 7.1.6 The text-chain revisited

In Section 2.4.1, a text-chain was discussed which featured a text moving from the textbook to the notebooks in a linear progression. This example has illustrated that the text-chain is more complex than that. Resemiotization does not proceed in a straight line. Instead the chain starts and stops and restarts in different places. The figure below represents how the text-chain in this lesson might be depicted.

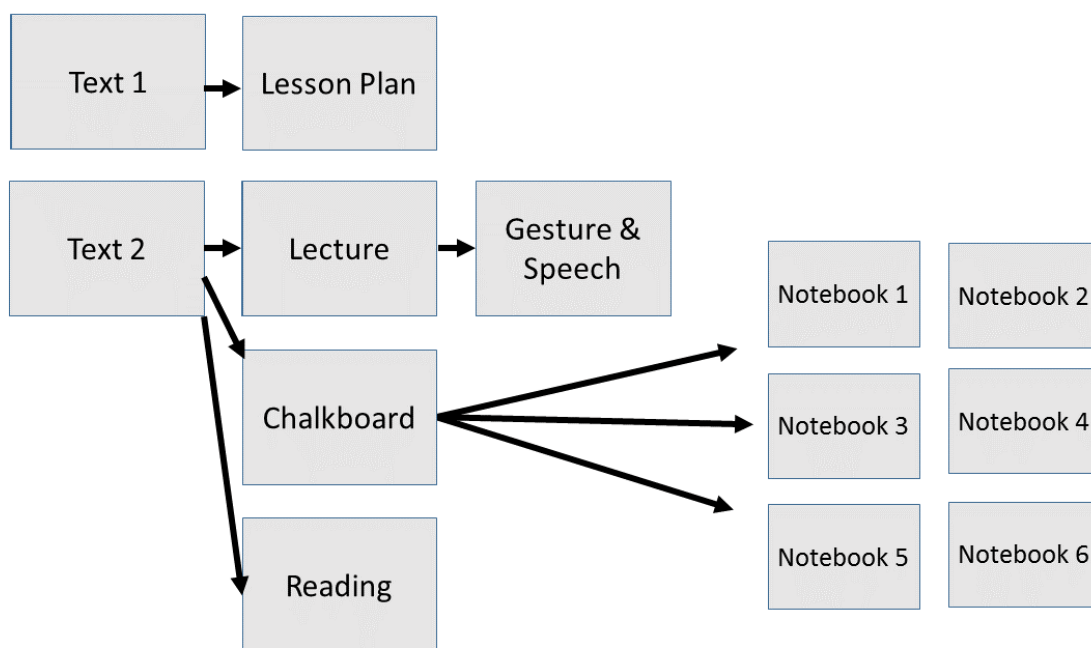


Figure 68: Resemiotization in the text-chain for a lesson on flooding

This text-chain features chains with only a single link and others that contain several links. As the lesson proceeds, the teacher and students call on different resources to create their texts. The interview with Anastacia suggested that she places a high value on making her lessons understandable. According to her, the way teachers should do this is through the use of a language that students can understand. Her emphasis on language differences is not surprising, since language comprehension difficulties are foregrounded in the L2 classroom (Chimbutane 2009:169). This example has shown that in addition to the use of Nyungwe, one of the ways in which she makes her lessons more meaningful is through gestures. Using gestures, for example, she depicts water soaking into the soil then running off toward lower land before entering the river. These gestures are instances of resemiotization in which words are embodied through body movement (Colletta et al. 2009). Multimodal communication seems to be used intuitively by Anastacia even if she does not overtly mention it as a strategy for helping students to understand in class.

An awareness of multimodality has been proposed as a strategy for improving educational outcomes. Stroud and Kerfoot (2013) claim that the notion of resemiotization could draw attention to undervalued semiotic resources like performance in higher education. A similar

claim is made by Stein (2008) in her analysis of South African education in which she sees a need to give more attention to the full repertoire of a student's multimodal capability. The same could be said for pedagogical methods which Mozambican teachers are intuitively employing. Drawing attention to the value of multimodality could validate these methods and potentially improve educational outcomes.

While the students in this example engaged in a rather imitative form of resemiotization in which they copied the chalkboard text into their notebooks, Anastacia engaged in complex and multiple forms of resemiotization. She resemiotized the textbook text multimodally as chalkboard text, lecture, readings, gestures and speech. Also, through *currículo local* she grounded textbook information in the daily world of the student. These various practices helped to achieve her goal of making the lesson more comprehensible to the students.

## 7.2 Breaking the text-chain in a lesson about hygiene

The next example from Anastacia's classroom is a lesson on hygiene (Lesson 21). This example will demonstrate that even in highly ritualized classroom practices teachers have means of making lesson content more meaningful for their students. The discipline for this lesson is Portuguese and so there is an emphasis on the ability to read the Portuguese text. As a result, Anastacia seems to avoid using Nyungwe in the lesson. She reads the chalkboard text. Then she leads the whole class in reading the text on the chalkboard. Next, she has small groups and individuals practice reading. However, Anastacia also focuses on meaning. In order to do so, she scaffolds Portuguese with other semiotic resources in order to explain what the lesson is about. As in the previous example, her classroom practices are rooted in daily life outside the classroom allowing everyday and academic domains of practice to coexist (Archer 2006:455). In this case, starting from the chalkboard text, she begins to recontextualize the classroom content in the students' world.

Most of the examples of resemiotization in this thesis have been between two forms of writing, but in this example writing is resemiotized as speech and gesture resulting in what Newfield (2009) refers to as 'transmodal semiosis'. After copying a text from the textbook onto the chalkboard, Anastacia begins reading the text, following the words with the point of a stick. After she has read it out in this way, she invites a volunteer to come to the board

and read. The first volunteer, a girl, reads the text carefully, pointing to each word as she reads it while Anastacia occasionally corrects her pronunciation (Figure 69).

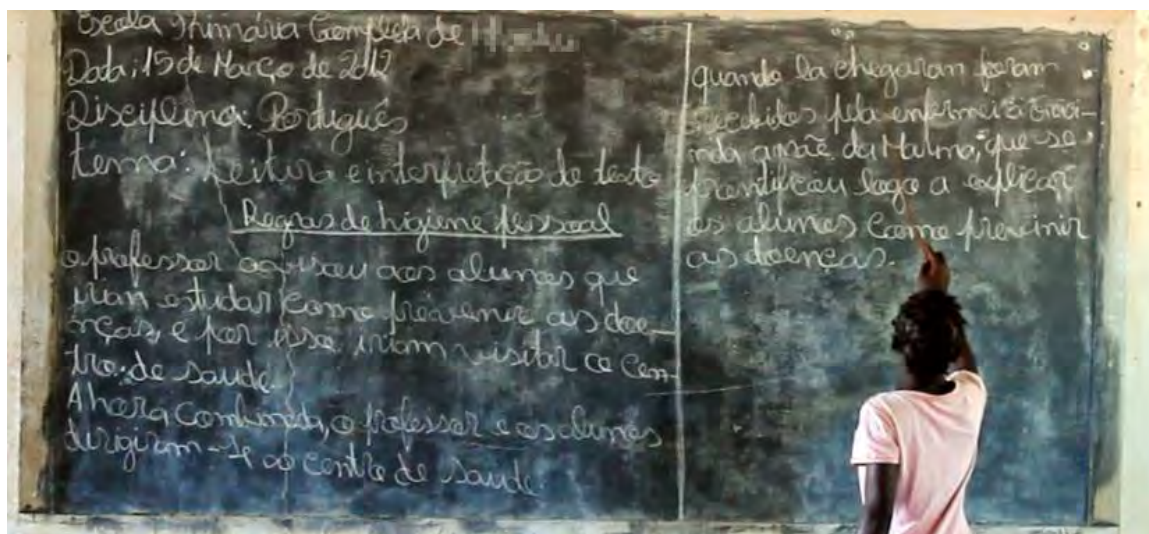


Figure 69: A girl uses a stick to point at the chalkboard while she reads.

The girl is engaged in resemiotizing the written text into speech while gesturing with the stick to indicate where she is in the text. This sort of deictic gesture (Kendon 2004:101) is different from the examples of pointing in the previous example. Here she is pointing at words representing the outside world, while in the previous example, Anastacia was pointing at the outside world itself. The chalkboard and the window represent two different worlds, one the world of text and Portuguese and the other the daily world in which the students live. Anastacia's role as the teacher is to create connections between these worlds through her teaching.

A second girl comes to the board and has more difficulty in reading the text. Anastacia takes back the stick and works with her on some of the words that she is struggling with. While doing this she questions the girl about the pronunciation of several words, and failing to get a correct answer from her also asks the class at large to answer her questions. After writing some sample words on the board for the girl to read, Anastacia tells her to go sit down and then she begins the next stage of the lesson.

In the next stage of the lesson, Anastacia lectures on various hygiene topics. She bases her lecture on a page from the textbook which lists recommendations for good hygiene. Since this is a Portuguese lesson, she avoids using Nyungwe. To compensate for this, she uses gestures and *currículo local* as means of communicating with the students. The first hygiene topic that she discusses is tooth brushing. She tells the student that they need to brush their teeth to remove food particles so that *as migalhas não apodrecem os dentes*, ‘crumbs don’t rot the teeth’. While saying this, she mimes the act of tooth brushing while pointing to imaginary crumbs in her teeth, gestures that are both representational and deictic (Fieldnotes, March 15, 2012). This corresponds to a sentence in the textbook that reads: *Lave os dentes ao acordar, ao deitar e depois das refeições*, ‘Brush the teeth upon waking up, going to bed and after meals.’ While there is a correspondence between the text and her lecture, Anastacia’s lecture is more specific, demonstrating tooth brushing and discussing the possibility of crumbs causing tooth decay. As was mentioned in Chapter 4, the reductive text-chain often serves as the basis for expansive resemiotizations employing modes other than writing. Here, speech and gesture are built on a simple text. Her next example similarly engages in expansive resemiotization. The textbook has a recommendation that reads: *Usa roupa limpa*, ‘Use clean clothes.’ Anastacia expands on this in her lecture, saying:

*Roupa suja deve limpar com agua quente para não cosar [e ter] burbulhas.*

‘Dirty clothes should be washed with hot water so you don’t itch [and have] rashes.’

While saying this she points to her body and mimics itching. This is a good example of the way in which resemiotization both imitates a model and builds on it creatively. Anastacia’s lecture goes beyond the three words in the textbook, *Usa roupa limpa*, to evoke images of dirty clothing, hot water, itching and rashes. The preponderance of representational gestures and *currículo local*-style references to daily life are a compensation for Anastacia’s reluctance to use Nyungwe in a Portuguese lesson.



Although Anastacia avoids using Nyungwe in this lesson, in one case she does use the Nyungwe word ‘nsima’, when talking about proper nutrition (Table 13). *Nsima*<sup>30</sup> is the local name for the stiff maize porridge which is a staple of the diet in this region.

Table 13: Lecturing about a balanced diet using Nyungwe vocabulary

#	Portuguese Transcription	English Translation
1	<i>Come uma dieta avariavel e equilibrada.</i>	Eat a varied and balanced diet.
2	<i><u>Nsima</u> hoje ... arroz amanhã</i>	<u>Nsima</u> today ... rice tomorrow
3	<i><u>Nsima</u>, <u>nsima</u>, <u>nsima</u>, <u>nsima</u> ...</i>	<u>Nsima</u> , <u>nsima</u> , <u>nsima</u> , <u>nsima</u> ...
4	<i>Voce vai ter boa saude?</i>	Are you going to be healthy?

As in the case of the tooth brushing example, Anastacia takes a general text (*Segue uma alimentação variada e equilibrada*, ‘Follow an eating regimen that is varied and balanced’) and creates a very vivid example evoking images of a person eating *nsima* during every meal.

In her next example, Anastacia takes a series of recommendations about drinking water and resemiotizes them into a cohesive narrative. The section from the textbook reads as follows (Table 14):

Table 14: Textbook instructions for clean water

#	Portuguese Transcription	English Translation
1	<i>Ferve a água para beber;</i>	Boil water to drink;
2	<i>Usa água limpa beber e limpar os alimentos;</i>	Use clean water to drink and wash food;
3	<i>Guarda á agua em latas, potes e outros recipientes limpos e tapados;</i>	Keep water in cans, pots and other receptacles that are clean and covered;
4	<i>Não tomes banho nos charcos, nas valas de drenagem ou nas águas provenientes dos esgotos.</i>	Don’t bathe in ponds, drainage ditches or water coming from sewers.

Anastacia resemiotizes these recommendations into a series of statements that expand on the text and also tie it to the local setting: ‘We’re going to boil water for five minutes and

<sup>30</sup> In other parts of the Southern African, ‘nsima’ is known as ‘shima’ or ‘pap’.

leave it to cool and then cover.’<sup>31</sup> She also refers to bathing, pointing at the waterhole near the school and saying: ‘We shouldn’t take water from that water. Taking a bath in dirty water always causes problems, rashes.’<sup>32</sup> This scaffolding of the textbook is especially important because the topics she discusses in her lecture do not correspond to what is written on the chalkboard (Figure 69). The chalkboard reads:

The teacher informed the students that they were going to study how to prevent diseases, and, for this, they would visit the health center. At the appointed time, the teacher and the students made their way to the health center. When they arrived they were received by the nurse Gracinda, the mother of Marina, that immediately began to explain to the students how to prevent diseases.<sup>33</sup>

This is a narrative found at the top of the textbook page describing a trip some students make to a health center to learn about disease prevention. Although this text is not closely related to the subject of her lecture, at the end of the lesson Anastacia still checks to make sure the students have copied the text off the board. The disconnect between the reading and copying activities on the board and Anastacia’s lecture, which is based on a different part of the textbook, shows that Anastacia conceives of this lesson as more than just an exercise in Portuguese reading and writing. Though the lesson is nominally about learning the Portuguese language, her interest goes beyond that to teaching about the topic of hygiene. Through the use of her lectures and gestures which are rooted in the daily life of the students, she shows an interest in engaging the students in a type of learning that goes beyond rote recitation and copying.

### 7.3 Decentering the text-chain in a lesson on the flag

The final lesson to be considered in this chapter is about the flag of Mozambique. This lesson is interesting because Anastacia seems to be improvising. She changes the scheduled

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<sup>31</sup> Portuguese transcription: *Vamos ferver a água para cinco minutos e deixar para arrefecer e depois tapar.*

<sup>32</sup> Portuguese transcription: *Não devemos tomar água naquela água. Tomar banho em água suja sempre provoca problemas, burbulhas.*

<sup>33</sup> Portuguese text: *O professor avisou aos alunos que iriam estudar como prevenir as doenças e, por isso, iriam visitar o Centro de Saúde. À hora combinada, o professor e os alunos dirigam-se ao centro de saúde. Quando lá chegaram, foram recebidos pela enfermeira Gracinda, a mãe da Marina, que se pontificou logo a explicar aos alunos como prevenir as doenças.*

lesson, drawing, to music. She never refers to her book or a lesson plan. The lack of a canonical text from the textbook results in an extremely varied lesson in which the normal chalkboard design is transgressed and Anastacia makes use of song, drawings and color to teach her impromptu lesson. This lesson is significant, therefore, because it suggests that in cases where there is no text for the lesson to be based on, teachers will compensate by employing other modes.

The first example in this chapter featured a text in the lesson plan that was not used during the lesson. The second example featured a chalkboard text that was not used during the lecture. In this example, there is no text at all. Each of these examples shows that although the text-chain is the expected writing ritual in the Mozambican classroom, it interacts in various ways with the rest of the classroom practices. Teachers seldom abandon the text-chain completely, but it can be decentered when other practices are brought to the fore. This lesson (Lesson 27) begins with the teacher leading the students in singing the national anthem. After singing several of the verses, Anastacia stops the students and begins correcting their singing of the song. She does this by writing some phrases from the song on the board and reading them out to the class. Unlike most written lessons in which the teacher writes on the left-hand side of the board and then moves to the right, here she begins on the right-hand side.

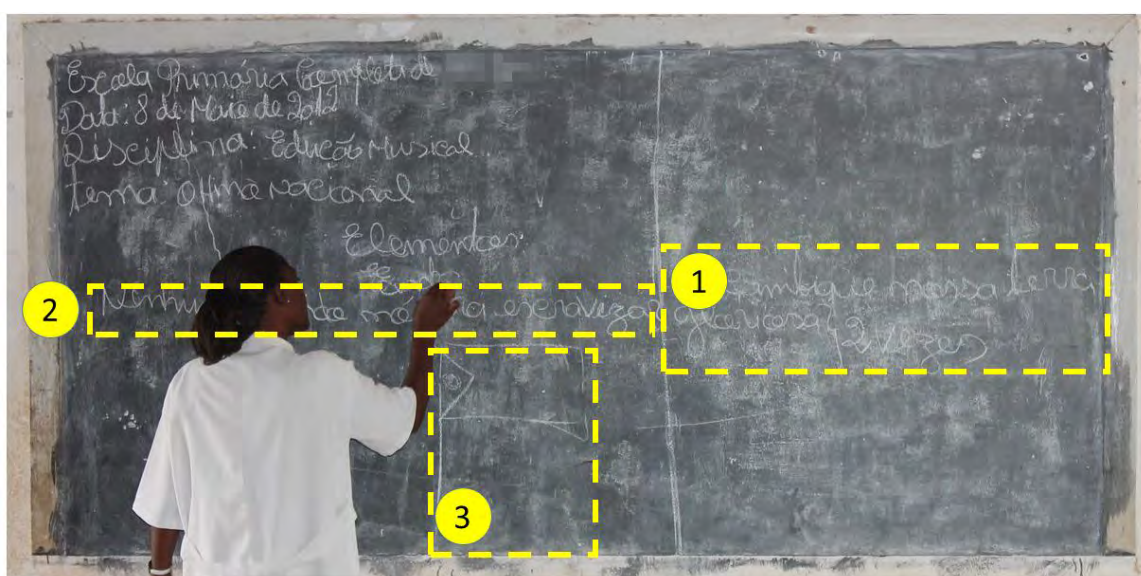


Figure 70: Anastacia begins writing a lesson about the symbols of Mozambique.

After writing two lines from the national anthem on the chalkboard (see details 1 and 2 in Figure 70), Anastacia begins asking the students: *Quais são os símbolos da nossa patria?* ‘What are the symbols of our country?’ She asks this question five times while drawing a picture of the Mozambican flag (see detail 3 in Figure 70). She mentions that if they walk into town they might see a flag. In this way she again shows her practice of tying classroom lessons to the world outside the classroom. At this point she leads the students in a song about the colors of the flag: *São cinco cores na nossa bandeira ... verde, branco, preto, amarelo, vermelho*, ‘There are five colors in our flag ... green, white, black, yellow, red.’ Anastacia then begins writing a list of the parts of the Mozambican flag on the board (see detail 4 in Figure 71) which requires her to erase a sentence and the drawing of the flag. Throughout the lesson, Anastacia uses only Portuguese.

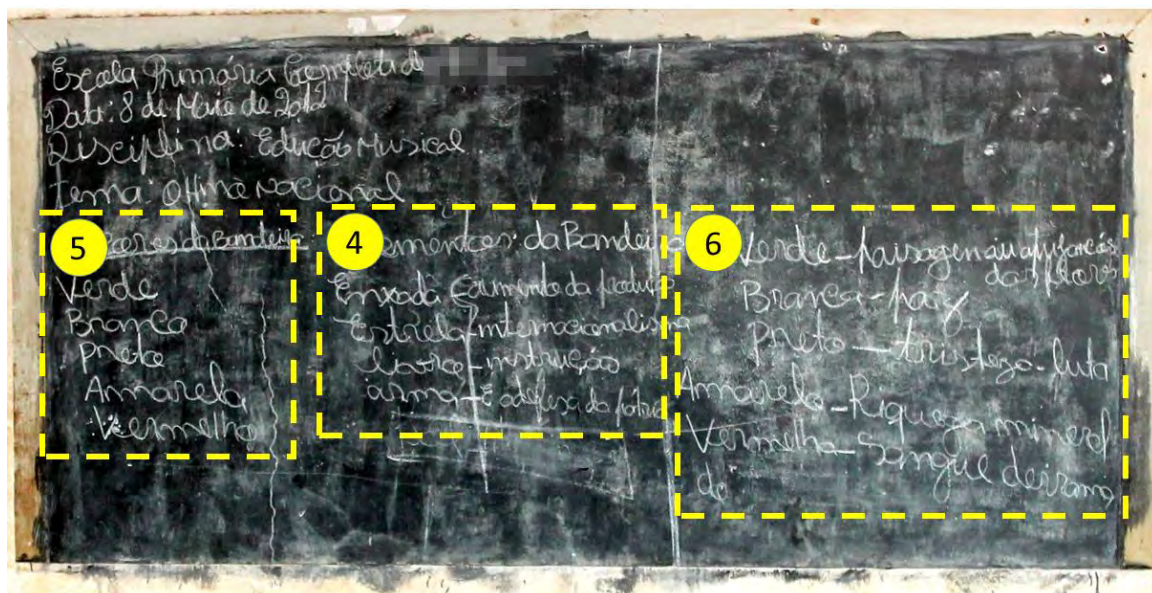


Figure 71: Anastacia continues writing about the symbols of Mozambique.

The speed with which she is writing and erasing on the board leaves the students with little time to copy the text in their notebooks. The students seem to be mostly just watching the teacher and joining in the singing. Anastacia next writes a list of the colors used on the flag and another list of the colors and their meanings (see details 5 and 6 in Figure 71). For the color white, she asks the students: *O que é branco?* ‘What is white?’ They respond with the Nyungwe word: *wacena*, ‘white’. The colors and their meanings are discussed by Anastacia

as are the emblems found on the flag, such as the hoe symbolizing agriculture and the rifle symbolizing national defense.

Although this lesson is not based on the textbook and the lesson has decentered the text-chain, Anastacia still requires the students to write something before the lesson ends. The lesson ends with the students copying the chalkboard text and Anastacia seated at her desk leading the students in miscellaneous songs:

Song about the start of the school day:

*Bom dia, Senhora Professora ... escola está bwino (bwino is Nyungwe)*

‘Good morning, Miss Teacher ... school is good’

Song about the end of the day:

*O pio pio pio pio ... até amanhã.*

‘O pio pio pio pio ... until tomorrow’

*Adeus, Senhora Professora ... até amanhã.*

‘Farewell, Miss Teacher ... until tomorrow’

Despite the unusual, non-linear progression of the writing on the chalkboard text, Anastacia expects the students to copy it in their notebooks, asking: *Acabaram?* ‘Have you finished?’ As the lesson ends, many students are still writing.

This lesson has several unusual features that deviate from the classroom ritual. First, the lesson is not based on the textbook. Anastacia draws on her memory to lead the students in singing and a lecture about the colors and parts of the flag. The lack of a textbook or lesson plan seem to result in a lesson that develops on the board in a rhizomatic profusion of writings and erasures. At the same time, the lesson is multimodally rich with numerous songs, drawings and references to colors and symbols. These features of the lesson suggest two things. First, they demonstrate the importance of a set text in organizing lessons. Without a textbook to work from, Anastacia wrote on the board in an unusual fashion, and erased parts of it several times to make room for other texts. Second, the lack of a textbook results in a lesson that decenters the written text and gives emphasis to other modes,

principally singing. Even so, the classroom ritual requires that the teacher and students write something.

#### 7.4 Conclusion

This chapter has sought to reflect some of the complexity of the text-chain as it was played out in three different lessons taught by a single teacher. Additionally, this chapter has shown the ways in which one teacher makes lessons more meaningful in an L2 classroom. In an interview, Anastacia foregrounded the importance of translating from Portuguese into the students' home language and this was borne out by her classroom practices in which she frequently translated lesson content from Portuguese to Nyungwe. Although she did not mention it in her interview, her classroom practices showed frequent examples of multimodality as a means for scaffolding the Portuguese text. Through gestures, lectures and songs, for example, Anastacia built bridges between the Portuguese text and her students. Through the use of *currículo local*, Anastacia tied decontextualized classroom knowledge to students' local knowledge.

This chapter has also shown that the text-chain is not simple and linear but rather multiple and complex. While the writing ritual seen throughout this thesis provides the central and authorized framework for practices in the classroom, a close inspection of these practices shows that they frequently feature other modes that supplement and scaffold the default text-chain. Anastacia's use of multimodality in the classroom is associated with instances of rich signification which are more student-directed than the rote-copying activities. Still, the writing activities remain as non-negotiable elements of a lesson, as was seen in the example of the lesson on the flag which required the students to copy something off the chalkboard even though it was an extemporary text created spontaneously by the teacher without reference to a canonical textbook text.

The extensive use of gestures in a Portuguese lesson on hygiene showed the way in which multimodality can scaffold meaning when the use of the students' home language is not appropriate. In these cases, gestures serve as means for increasing comprehension of the students. Many of the instances of non-textual resemiotization employed by Anastacia built on very general statements in the textbook with vivid and specific examples rooted in the



daily life of her students. By referring to a nearby waterhole, a walk through town, and the eating of *nsima*, Anastacia was working out her personal emphasis on increasing comprehension as mentioned in her interview.

Aside from safetalk strategies like rote recitation and simple questions and answers, the classroom lessons in this chapter were mostly lacking in dialogic interaction. This is most likely attributable to the challenges Anastacia faced in controlling a large classroom of L2 students while trying to teach a lesson in a relatively short period of time. Even so, her use of the home language, gesture, song, and lecture showed that Anastacia was actively engaged in resemiotizing the lesson and going beyond the text-chain ritual in order to help students understand what was being taught. This chapter has therefore shown a tension between a teacher's need to produce tangible artifacts of the classroom ritual in the form of texts on the chalkboard and in the notebook and her desire to engage students meaningfully in learning through a variety of multimodal means.





## 8 Conclusion

This thesis has argued that the writing practices in an L2 Mozambican primary school are an example of resemiotization. Using a multimodal ethnographic approach, this research has shown the complex multimodal character of classroom practices by teachers and students by means of direct observation, photographic data-records and interviews. Writing practices were analyzed by comparing samples of teacher and student writing. Interviews focused mostly on teacher reflections about their education in comparison with current education as well as on answering questions about writing practices and bilingual education.

Teachers structure their lessons around a text-chain which originates in the textbook. By displaying a text on the chalkboard, teachers facilitate a form of education that emphasizes rote copying. While classroom practices are highly imitative, the teachers exhibit varying degrees of creativity in selecting the text to be presented as well as the degree to which they employ other semiotic resources including the students' home language to scaffold learning. Students vary considerably in the degree to which they can accurately copy chalkboard texts into their notebooks. The language of instruction is an important factor in shaping writing practices, but material and social constraints of the classroom including the distance of the chalkboard from the students, the limited time available for completing lessons, and the lack of individual interaction with the teacher play a role as well.

### 8.1 The chalkboard as central site of display in multimodal and multilingual classroom practices

In the Mozambican primary school where this research was undertaken, the chalkboard is the central site of display in multimodal and multilingual classroom practices. Chalkboard writing has several distinctive characteristics that differentiate it from the other links in the text-chain. Chalkboard writing unfolds in real-time during the course of a classroom lesson. The chalkboard text is multimodal as it includes a wide range of semiotic resources including writing style, design, color, and drawing. In addition to being a multimodal practice, chalkboard writing takes places alongside other multimodal practices in which teachers and students draw on a variety of semiotic modes including writing, speech, drawing, gestures, song, and dance in the process of enacting classroom ritual. Chalkboard writing is mimetic in

the sense that it imitates previous links in the text-chain while being creatively designed by the writers for the purpose of the recipients of the text. This imitation is centered on the textbook but it also draws on the teacher's lesson plan, student input through classroom discussions, and the teacher's own actively responsive interaction with classroom constraints such as limited time and large classroom sizes.

The design of the chalkboard text includes a prominent heading, a dividing line and a general flow of the text from the left-hand side to the right-hand side of the board. The materiality of the chalkboard affects what is written on the board and the facility with which students can copy that text into their notebooks. The materiality of the board includes its size and height, its distance from the students, and the physical surface of the board which is often uneven and covered in chalk dust from previous erasures. The color of chalk also impacts the visibility of the text. In addition to the materiality of the chalkboard, the language used and the writing style also affect students' ability to copy the text.

The Portuguese language is a second or foreign language to most of the students. This complicates their attempts to accurately copy the chalkboard text. Evidence for this was seen in student errors on even simple words like *não*, 'no' (see Section 4.3). Further evidence was seen in 'head-bobbing' behavior (see Section 5.3) by the students which suggested that they were comprehending the chalkboard text on a letter-by-letter basis. Writing on the chalkboard is exclusively done in a cursive writing style which impacts the legibility of the text depending on the teacher's care in writing letters. Additional evidence for the student's struggles with Portuguese is seen in the ways in which verbal classroom discourse in the L2 is marked by brief one-word responses and safetalk exchanges which contrast sharply with the students' more voluble responses in their home language and their use of their home language outside of the classroom. While informal speech is characterized by the use of the home language, chalkboard writing is done exclusively in Portuguese with no instances of home language writing observed during this research.

Teachers vary in the extent to which they modify the textbook text in order to make it appropriate for the students and the amount of time available for the writing activity. In some cases, teachers copy a text directly onto the chalkboard without modification, even to

the point of replicating errors in the text. In other cases, teachers modify the textbook text considerably in order to make it more appropriate for their students and the particular lesson. Teachers also vary in the extent to which the classroom lessons that they orchestrate include activities encompassing more than just rote copying.

Teachers are the primary writers of chalkboard texts but they also involve students in writing on the board in various ways including completing answers, solving mathematical problems, drawing clock faces, and erasing the board. By calling on more capable students to write answers on the board, the teacher use a safe-writing strategy akin to safetalk strategies which allows the classroom ritual to proceed despite difficulties resulting from the L2 and large class sizes.

## 8.2 Following the text-chain

This research found that students vary considerably in the extent to which they are able to copy chalkboard texts into their notebooks. Some students are able to create a legible facsimile of the chalkboard text. Others produce various types of pseudo-writing which imitate the shape or design of the words on the board without resulting in intelligible copies of the text.

As texts proceed along the text-chain from the textbook to the student notebooks, they are resemiotized at each stage. This resemiotization is governed by the affordances of the various written modes, the interest of each writer, and the exigencies of classroom practices. The result is that the imitation of texts in the classroom results in widely varying texts. Resemiotization is therefore characterized by mimesis in which texts show evidence of both imitation and creativity.

The sorts of texts on the chalkboard which need to be resemiotized by the students vary between those in which all that is required is that the students copy the text without change into their notebooks and those which require the students to supply part of the text by answering questions, solving problems, or filling in blanks. For those texts which require more than rote copying, teachers often provide the answers, either directly or by having a student write the answer on the board. Student writing displays evidence of heterography with spelling difficulties and erratic capitalization and spacing. The limited time for each

lesson and the large number of students makes it difficult for teachers to evaluate student work carefully and to assist individual students. As a result, teachers tend to favor activities which require students to provide short answers which can be evaluated in only a few seconds.

The writing of student names has a marginal position in the text-chain. Despite the exclusive use of cursive in the classroom, most students write their first name in print letters. This suggests that the writing of the name is a skill learned outside the classroom. The surname, on the other hand, is usually written in cursive, and many students have to reference their notebooks in order to write their surname properly.

The pseudo-writing of several of the students observed is a special instance of resemiotization in which the formal characteristics of the chalkboard text are mimicked in the notebook without the text being legible Portuguese. Pseudo-writing varies between examples that have shapes that look like Portuguese letters to those that are more like scribbles. The students' use of pseudo-writing allows them to take part in the classroom ritual by looking busy. Some students are able to switch between pseudo-writing and legible writing while others exclusively use an illegible pseudo-writing.

Students use elements of design to resemiotize the chalkboard text. Design elements include the use of color and embellishments of various types. Line breaks are interpreted by students as semiotically significant design elements and so students tend to preserve the amount of text on each line of the chalkboard in their notebooks.

Teachers mark student work as correct, sufficient, or incorrect through the use of symbols written over the top of the notebook text. The marking stage of classroom lessons is done very rapidly at the end of lessons with often more than fifty notebooks marked in only a few minutes. Student evaluations are resemiotized beyond the classroom in the form of school enrollment statistics and grade reports.

Although the text-chain normally begins with the textbook and proceeds to the chalkboard and the notebook, in some cases resemiotization continues beyond the confines of the classroom lesson. Outside of the classroom, notebook and textbook pages are resemiotized in more practical ways. A survey of the linguistic landscape around the school showed

evidence of pages being used to wrap food and as toilet tissue. Notebook and textbook pages often end up as rubbish that is gathered up at the end of each day or that is discarded in the schoolyard. This final resemiotization suggests the limited scope of the texts created within the classroom: the value of the text is tied to the classroom ritual, while outside the classroom it is the paper that has value.

### 8.3 Drawing: creativity in the text-chain

Although most of the texts in the text-chain are written, teachers and students also frequently engage in drawing. While written texts tend to be more imitative, drawing activities involve more student creativity. Drawing plays a larger role in classroom practices than was suggested by the official classroom schedule which dedicates only two out of a total of twenty-nine weekly class periods specifically to drawing. Drawing features in more than a third of classroom lessons in some way. When students take part in drawing activities, teachers appear to be less strict about how accurately textbook models are copied. Evaluation seems to be based on neatness, with positive evaluations given to neat work even when it departs widely from the topic of the lesson. Drawings by students are characterized by individuality, creativity and color. As such, drawing is evidence of the sorts of rich semiotic resources that students have which are not always evident in L2 classrooms due to assessment which is based primarily on writing. The diverse and erratic labels that students add to their drawings show signs of a disconnect between the propositional value of writing and the semiotic potential of drawing.

Even though the creative side of resemiotization seems to be in the fore during student drawing, the textbook and chalkboard continue to exert a strong influence on what students draw. Many drawings are based on a page suggested by the teacher, and in one case a teacher's drawing of a fish on the chalkboard resulted in drawings of fish being added to student drawings even when what they were drawing did not have anything to do with fish.

A possible reason for the prevalence of drawing is that it serves a role in alleviating tensions resulting from classroom ritual in the L2. In contrast with writing in Portuguese, drawing is an activity that students engage in enthusiastically and which seems to aid teachers in dispelling some of the frustration and boredom that accumulate over the course of the day.

The various manifestations of drawing in the classroom highlight the distance between decontextualized texts in the textbook and the lived experience of the students.

In addition to artistic drawing, teachers and students also engage in the drawing of design elements and tables. Lines, boxes and circles are often used in chalkboard texts to indicate where students should write their answers to classroom exercises. Some forms of drawing reflect exceedingly complex systems of signification like the analog clock, for example, which shows the time through a combination of lines and numbers. On the other hand, free drawing lessons allow students to engage in ritualized drawing of schools, houses and human figures in a way that gives more leeway for variety in the sorts of drawings that are accepted by the teachers.

Samples of student drawing also show evidence of private and transgressive drawing. These images depict violent and sexual scenes and are evidence of students' interest in taboo topics that are not addressed in normal classroom lessons. In this regard, drawing is significant in showing the difference between the decontextualized knowledge in the classroom and the real-life experience of the students.

#### 8.4 Balancing the text-chain ritual with helping students understand the lesson

The analysis of one teacher's classroom practices shows that the written text-chain ritual associated with Portuguese exists in tension with attempts to help her students understand the lesson. The time pressure caused by short lesson periods and the uncertain position of the local language in the classroom predisposed the use of rote-copying activities. The teacher, Anastacia, foregrounds language issues in her discussion of the responsibility of teachers to focus on meaning, and so she uses the local language to explain lesson topics and unfamiliar vocabulary. However, her classroom practices show evidence of two other strategies. First, she makes use of multimodality, especially gestures, to explicate the lesson text. Second, she engages in informal *currículo local* practices in which she draws on examples from the students' surroundings and daily life to make decontextualized lessons more meaningful.



## 8.5 Limitations

This thesis was marked by several limitations which affected the analysis of writing practices in L2 classrooms. First, the fieldwork portion was limited to only four weeks spent at the research site with only forty-four lessons observed. An ethnographic approach that included participant observation over a longer period of time would undoubtedly address questions that arose during the analysis stage that could not be answered due to the distance from the research site. A blind spot in this research centered on the students. While samples of their texts were collected and compared, attempts to interact directly with students proved difficult and unfruitful. As a case study, this research was limited to a single research site. Expanding this research to other schools in Mozambique would have been beneficial.

## 8.6 Directions for future research

Writing practices are associated with Portuguese as the language of instruction. The switch to teaching in the home language of students might bring benefits as well as unintended consequences. The lack of textbooks in home languages together with teachers' unfamiliarity with writing these languages should be investigated to see how writing practices change when the language of instruction is the home language of the majority of students. Further case studies of resemiotization in the classroom are needed. Research in other parts of Africa that applies multimodal analysis and the concept of resemiotization to classroom writing practices would be a logical next step.

## 8.7 Contribution to scholarship

This thesis contributes to scholarship by drawing attention to the complexity of writing practices in L2 classrooms. Writing is shown to be a term that covers a wide range of practices including rote copying, drawing, doodling, and pseudo-writing. These writing practices take place in an environment marked by linguistic and semiotic diversity. The chalkboard and notebook are such widely accepted parts of the classroom that they have failed to be recognized as technologies in their own right. This research has addressed a gap in the literature on multimodality in education in contexts where 'low-tech' tools like the chalkboard and notebooks are still used on a daily basis.

This thesis has also expanded the use of the term resemiotization by looking in detail at the material and social processes that occur in the classroom. Additionally, this thesis has drawn attention to ritual as an organizing principle for resemiotizing processes in which institutional forces and authorized language influence and shape local practices. The use of the notion of mimesis has allowed this analysis to account for the way in which resemiotization involves both imitation and creativity in a text-chain that exhibits signs of semiotic reduction while simultaneously facilitating instances of profuse multimodal communication.

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## Appendices

### List of interviews

DATE	NAME*	DESCRIPTION	Minutes
Mar 16	Estevão	Assistant director of Kwadoka Primary	39:00
Mar 16	Paula	Grade 4b teacher	26:30
May 9	Estevão	Assistant director of Kwadoka Primary	19:30
May 14	Yolanda	Grade 4a teacher	20:30
May 15	Anastacia	Grade 5b teacher	20:00
May 15	Director BE	Provincial director of Bilingual Education	44:30
May 16	Director	School director	24:00
May 16	Irena	Grade 3b teacher	24:00
May 16	Joana	Grade 3a teacher	20:00

\* All names are pseudonyms

### List of abbreviations

Abbreviation	Meaning	Translation
M	Matemática	Mathematics
CN	Ciências Naturais	Natural Sciences
PT	Língua Portuguesa	Portuguese Language
CS	Ciências Sociais	Social Sciences
EVT	Educação Visual-Técnica	Visual-Technical Education
EM	Educação Musical	Music Education

## Lessons observed

*	REF	DATE	CLASS	SUBJ	DESCRIPTION	PHOTOS
*	1	MAR6	3a	M	Greater than / Less than	125
*	2		3b	CN	Wild animals	65
	3		3b	PT	Forms of phrases-negation	38
	4	MAR7	4b	CS	The times of our parents	29
	5		4b	M	Multiplication by 10,100,1000	100
	6		5b	M	Roman numerals [double period]	78
	7		3a	PT	Father's day	53
	8		3b	PT	Drawing pictures for mother	41
*	9	MAR9	4b	M	Multiplication by 10,100,1000	68
*	10		4b	CN	Rubbish and the atmosphere	46
	11		3b	PT	Conjugating <i>ter</i> , Drawings for family day [double period]	130
	12		3b	M	8x table	199
	13	MAR12	4a	PT	Prepositions [double period]	137
*	14		4a	CS	Hunting	109
*	15		4a	M	Test	96
	16	MAR13	5a	M	Using a compass	98
	17		5a	P	Syllables	72
	18		5a	P	Noun phrases and verb phrases	88
*	19		3a	P	Conjugating <i>ir</i>	125
*	20		3a	EVT	Hunting animals and fish	238
*	21	MAR15	5b	P	Hygiene	122
*	22		5b	M	Measuring time	369
*	23		5b	CN	Flooding	205
	24	MAY8	4b	M	Grams and kilos	103
	25		4b	PT	Independence day	111
	26		5b	PT	Contraction of article plus preposition	140
*	27		5b	EM	National hymn	62
*	28		3a	M	Parallel and perpendicular lines	152
	29		3a	CN	Rivers	75
*	30		3a	PT	Day of the child	57
	31	MAY9	4a	CN	Fresh water	134
	32		4a	PT	Irregular verbs	74
	33		4a	PT	ão vs. am	86
	34	MAY10	4a	PT	Reading 'A visit to the city'	53
	35		4a	PT	Exercises	67
*	36		4a	M	Grams and kilos	65
	37	MAY11	5a	PT	Animals 1	9
	38		5a	PT	Animals 2	79
	39		5a	M	Exercises	37
	40	MAY14	4a	EVT	Free drawing	138
*	41	MAY16	3a	EVT	Free drawing	136
*	42	MAY17	3b	EVT	My family	123
	43		3b	M	Exercises	54
*	44	MAY18	4b	EVT	My family	186

\* indicates lessons referenced in the thesis.